FD-20AEB

SERVICE MANUAL

US Model
AEP Model
E Model

V35

WATCHMAN

SPECIFICATIONS

TV standard	American TV standard CCIR TV standard British TV standard
Channel coverage	Refer to the chart on page 34.
Antenna	VHF/UHF telescopic antenna
Picture tube	5-cm (2-inch) picture measured diagonally
Speaker	Approx. 3 cm (1.2 inches) dia.
Output	Earphone/headphone jack (minijack) load impedance 8–300 ohms
Battery life	Watching TV at a normal sound level and normal temperatures, you can expect approx. 4 hours of continuous viewing with Sony Eveready AM3 or Eveready No. E91 alkaline batteries.
Power requirements	6 V dc: Batteries US model: four size AA alkaline batteries (IEC designation LR6) AEP, E model: four alkaline batteries IEC designation LR6 (size AA) BP-23 rechargeable battery pack (optional) DC IN 6 V jack accepts: US model: AC-129 WA ac power adaptor (optional) for use on 120 V ac, 60 Hz AEP model: The supplied ac power adaptor for use on 220 V ac, 50 Hz E model: The supplied ac power adaptor for use on 110, 120, 220 or 240 V ac, 50/60 Hz DCC-127 A car battery cord (optional) for use on 12 V car battery Battery case (optional) US model: EBP-6 for use on four size C alkaline batteries (IEC designation LR14) AEP, E model: EBP-6 for use on four alkaline batteries IEC designation LR14 (size C)
Dimensions	Approx. 83.8 × 167.9 × 39.7 mm (w/h/d) ($3\frac{3}{8} \times 6\frac{5}{8} \times 1\frac{5}{8}$ inches) incl. projecting parts and controls Approx. 78 × 162.5 × 36 mm (w/h/d) ($3\frac{1}{8} \times 6\frac{1}{2} \times 1\frac{7}{16}$ inches) not incl. projecting parts and controls
Weight	Approx. 510 g (1 lb 2 oz) incl. batteries Approx. 415 g (14.7 oz) not incl. batteries

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MICROFILM

FLAT BLACK AND WHITE TV

SONY®

B&W

SAFETY CHECK-OUT (US MODEL)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

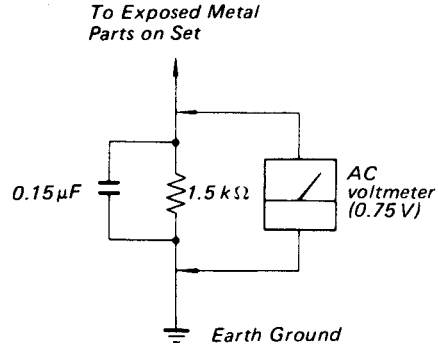


Fig. A. Using an AC voltmeter to check AC leakage.

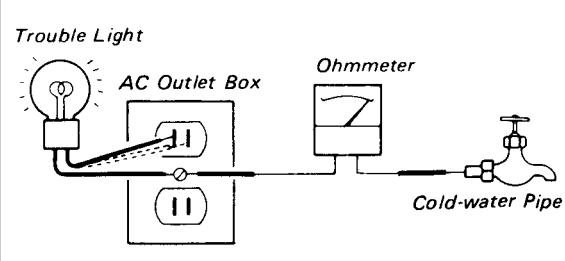
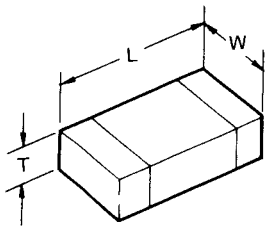


Fig. B. Checking for earth ground.

Chip components

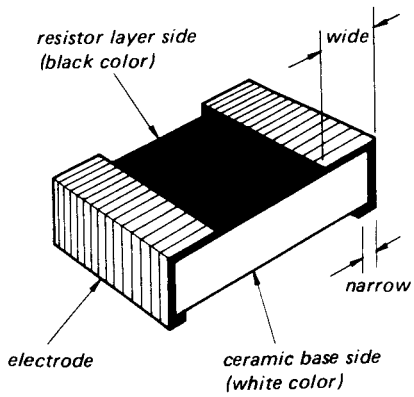
Chip components include resistors, capacitors, transistors, diodes, coil and adjustable resistors.
In this section, the types of resistors, ceramic capacitors, transistors and diodes which are used most frequently will be described.
Dimension of transistors and capacitors



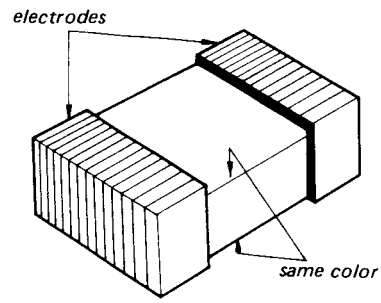
(Unit: mm)

Type	L	W	T
3216	3.2	1.6	0.45 ~ 0.6
2125	2.0	1.25	0.35 ~ 0.5

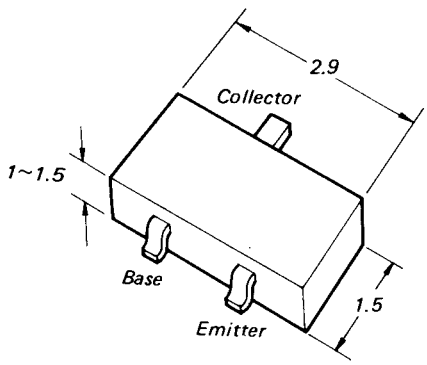
Identification



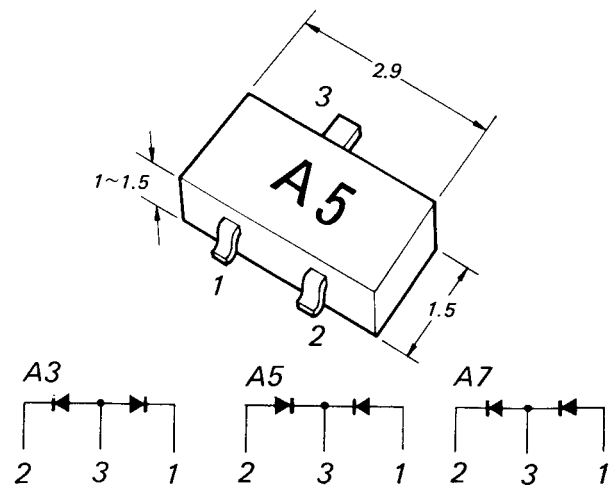
Resistor



Laminated Ceramic Capacitor



Transistor



Diode

Replacing chip components

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

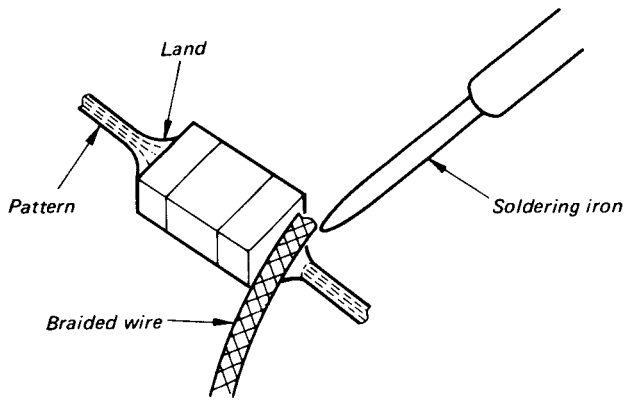
Precautions for replacement

1. **Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.**
2. **Never re-use a disconnected chip component. Dispose of all old chip components.**
3. **To protect the chip component, heating time for attaching the component should be within 3 seconds.**

○ **Removing chip components**

(1) Removing solder at electrode

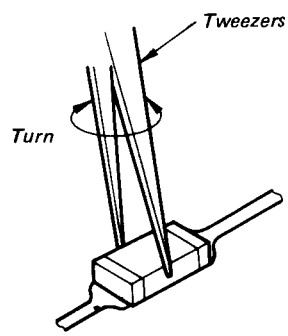
Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.



(2) Disconnecting chip components

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off.

Never re-use a disconnected chip component.



(3) Smoothing the soldered surface

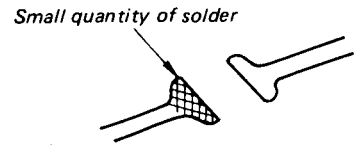
After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

○ **Connecting chip components**

The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

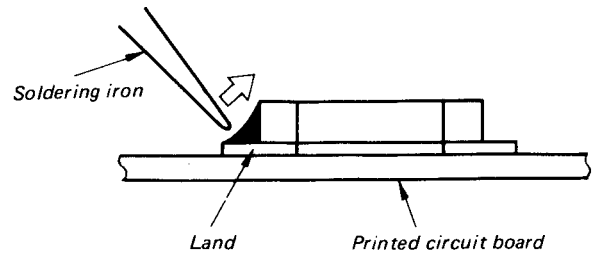
(1) Applying solder to land on one side

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.



(2) Speedy soldering

Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.



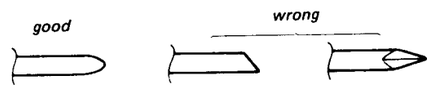
(3) Speedy soldering of electrode on the other side

Solder the electrode on the other side in the same way as in (2) above.

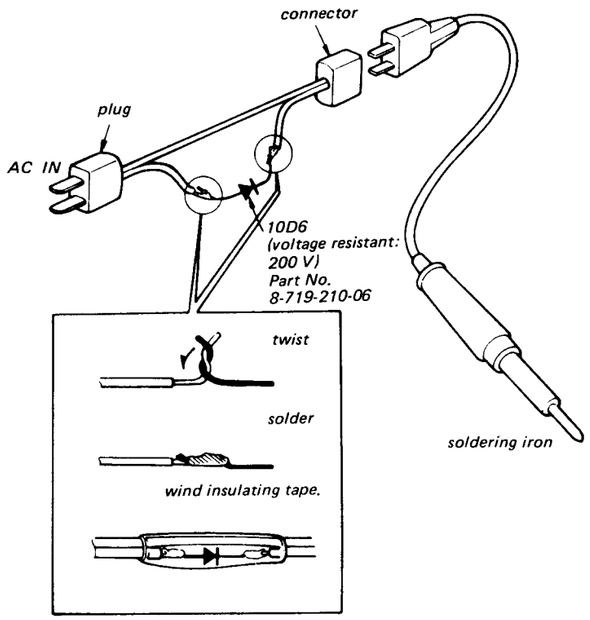
Flexible Circuit Board Repairing

1. Keep the temperature of the soldering iron at 270° ± 10°C during repairing.
   You can maintain the temperature of the soldering iron around 270°C by using the thermal controller as illustrated on the right.
2. Do not touch the soldering iron more than 4 seconds or 4 times on the same conductor of the circuit board.
3. Do not apply force on the conductor when soldering or unsoldering.

Tip of soldering iron

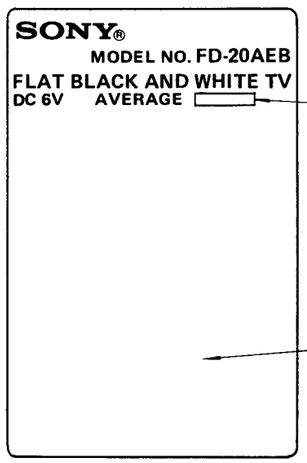


To make thermal controller of soldering iron



MODEL IDENTIFICATION

— Specification Label —

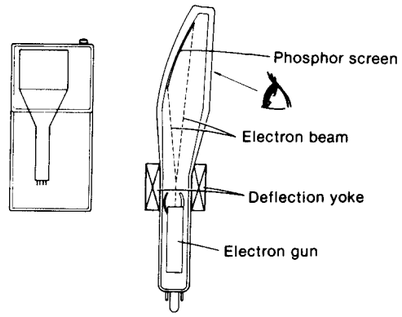


US model : 2.1 W
AEP, E model : 2.0 W

set	label color	letters
silver type	silver	black
black type	black	silver

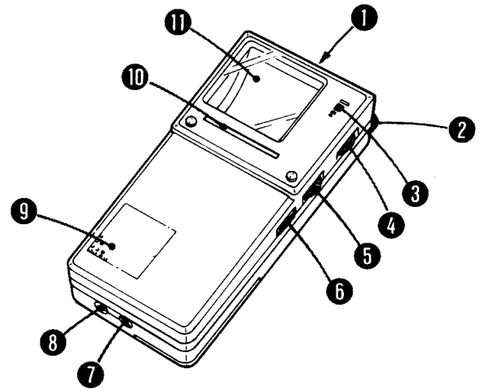
FEATURES

The FD-20AEB is a compact 2-inch B/W TV which employs Sony's innovative monochrome FD (flat display) tube. A recessed phosphor screen provides clear viewing even in bright viewing conditions.

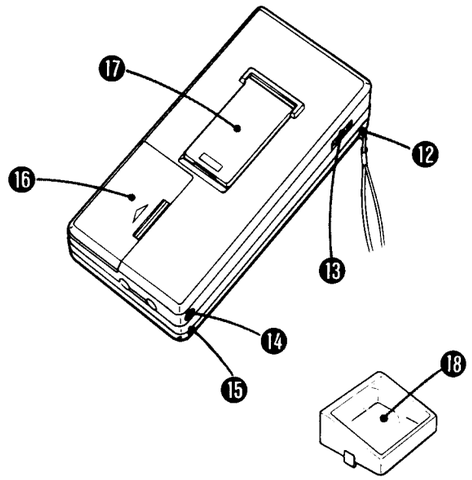


- A special 3-system tuner allows the FD-20AEB to receive broadcasts in approximately 60% of all countries.
- Built-in thin speaker with samarium cobalt driver for high quality sound.
- Easy reference volume indicator.
- The built-in stand holds Watchman at correct angle for best tabletop viewing.
- Five auxiliary power source option: batteries, house current, rechargeable battery, battery case and 12 V car battery.

PARTS IDENTIFICATION

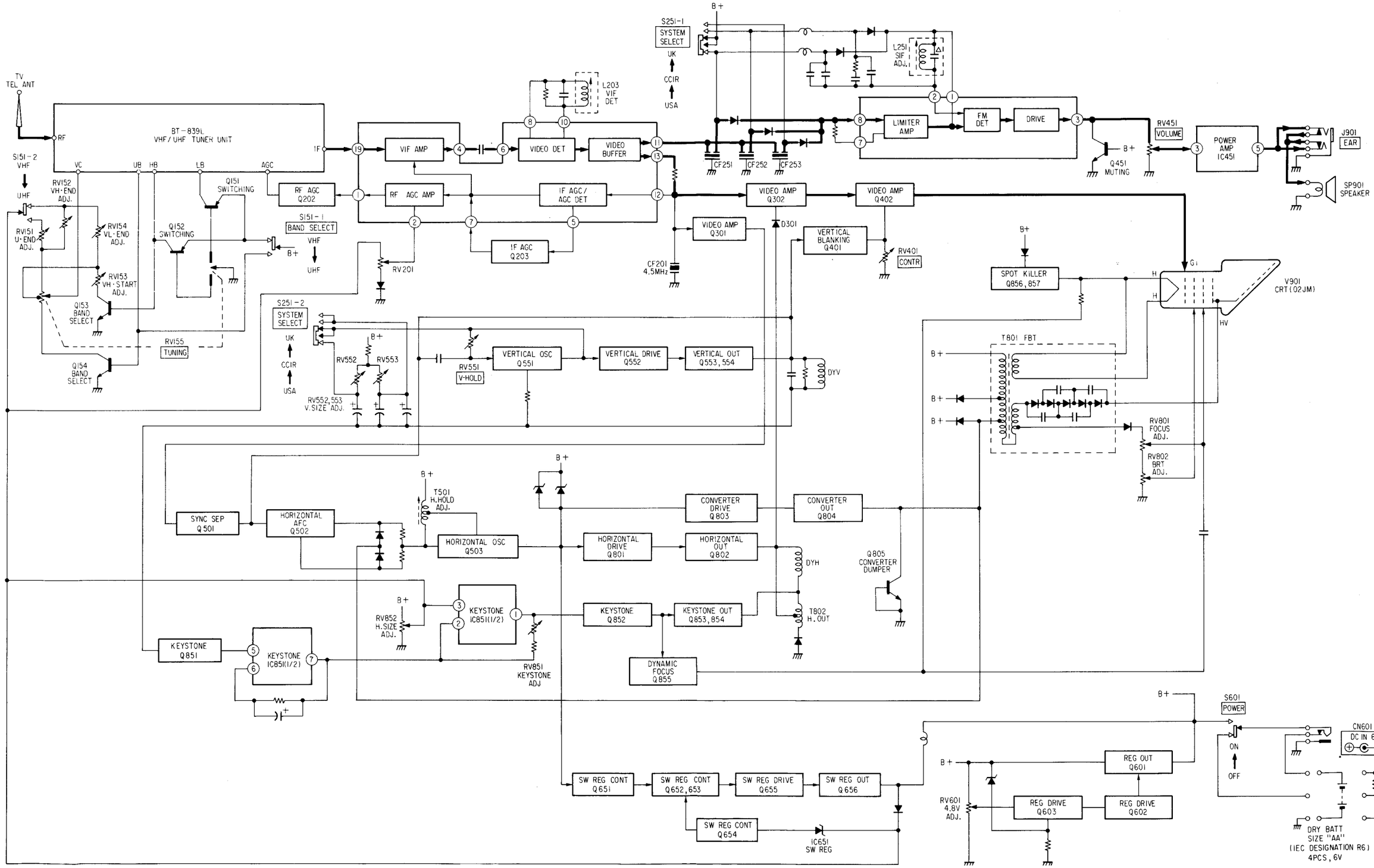


❶ SYSTEM SELECT switch
❷ Telescopic antenna
❸ VOLUME indicator
❹ VOLUME control
❺ TUNING knob
❻ POWER switch
❼ CONTR (contrast) control
❽ V (vertical) HOLD control
❾ Speaker
❿ Dial scale
⓫ Screen



⓬ Loop for hand strap
⓭ BAND SELECT switch
⓮ DC IN 6 V (external power input) jack
⓯ EAR (earphone) jack
⓰ Battery compartment
⓱ Stand
⓲ TV close-up viewer (supplied) (AEP, E model)

SECTION 1
BLOCK DIAGRAM

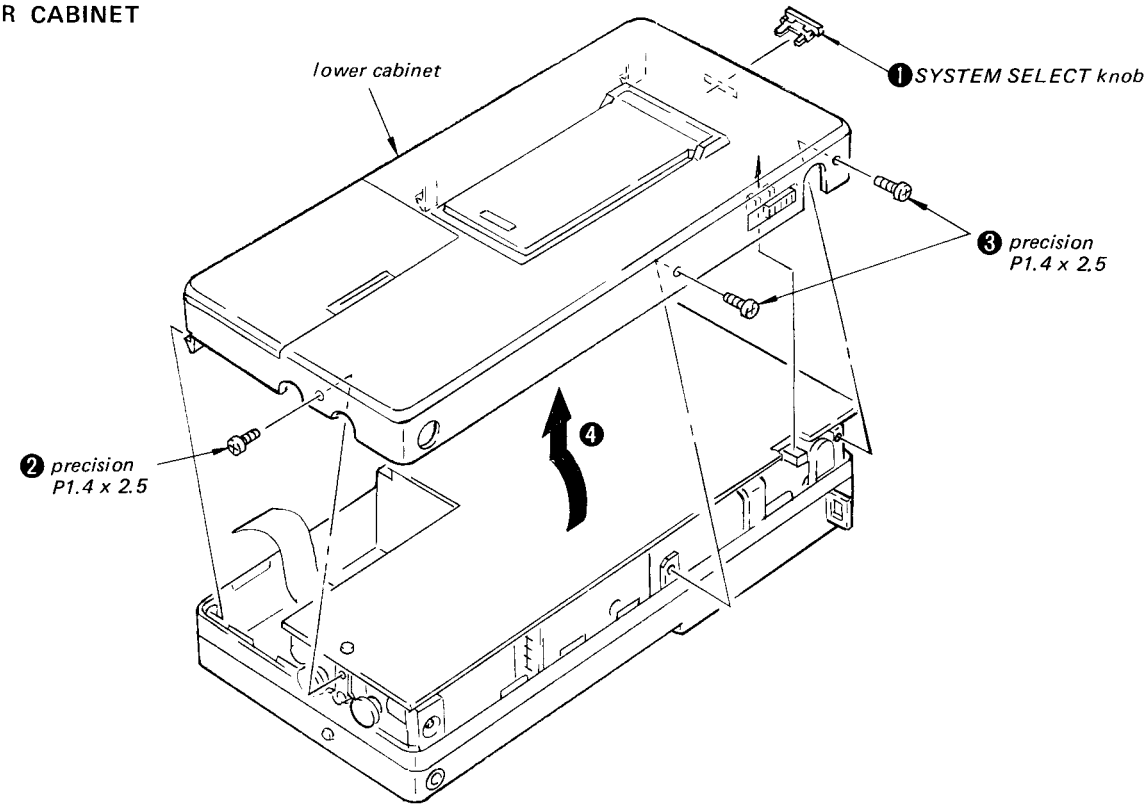


SECTION 2
DISASSEMBLY

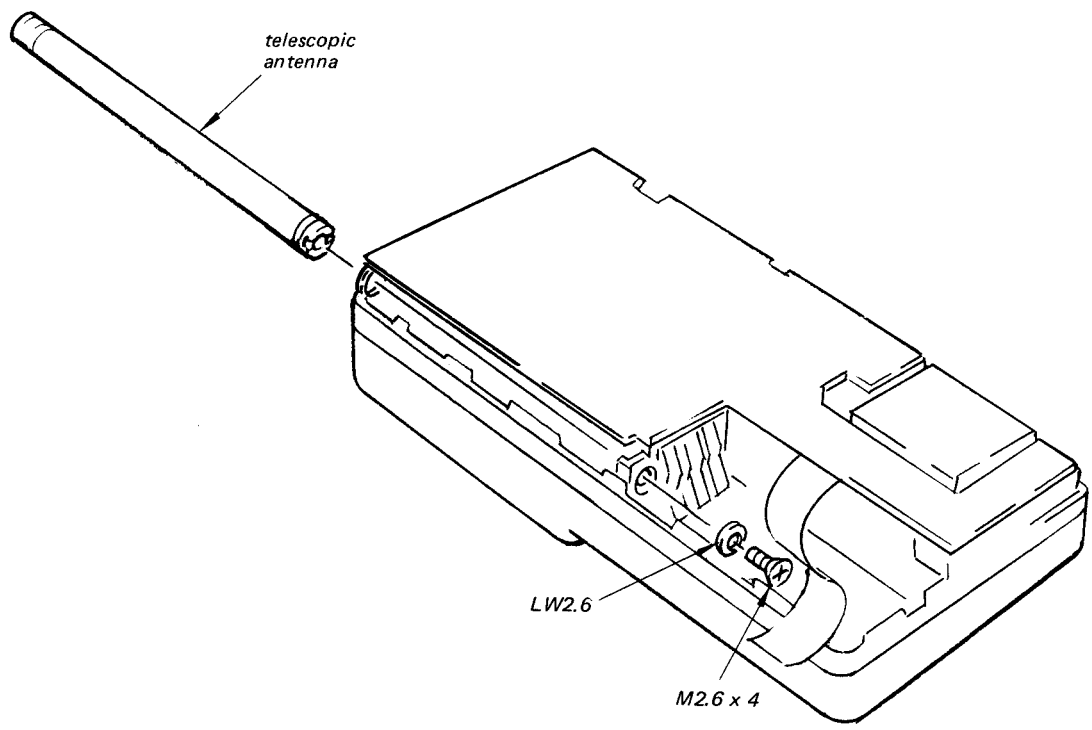
2-1. REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

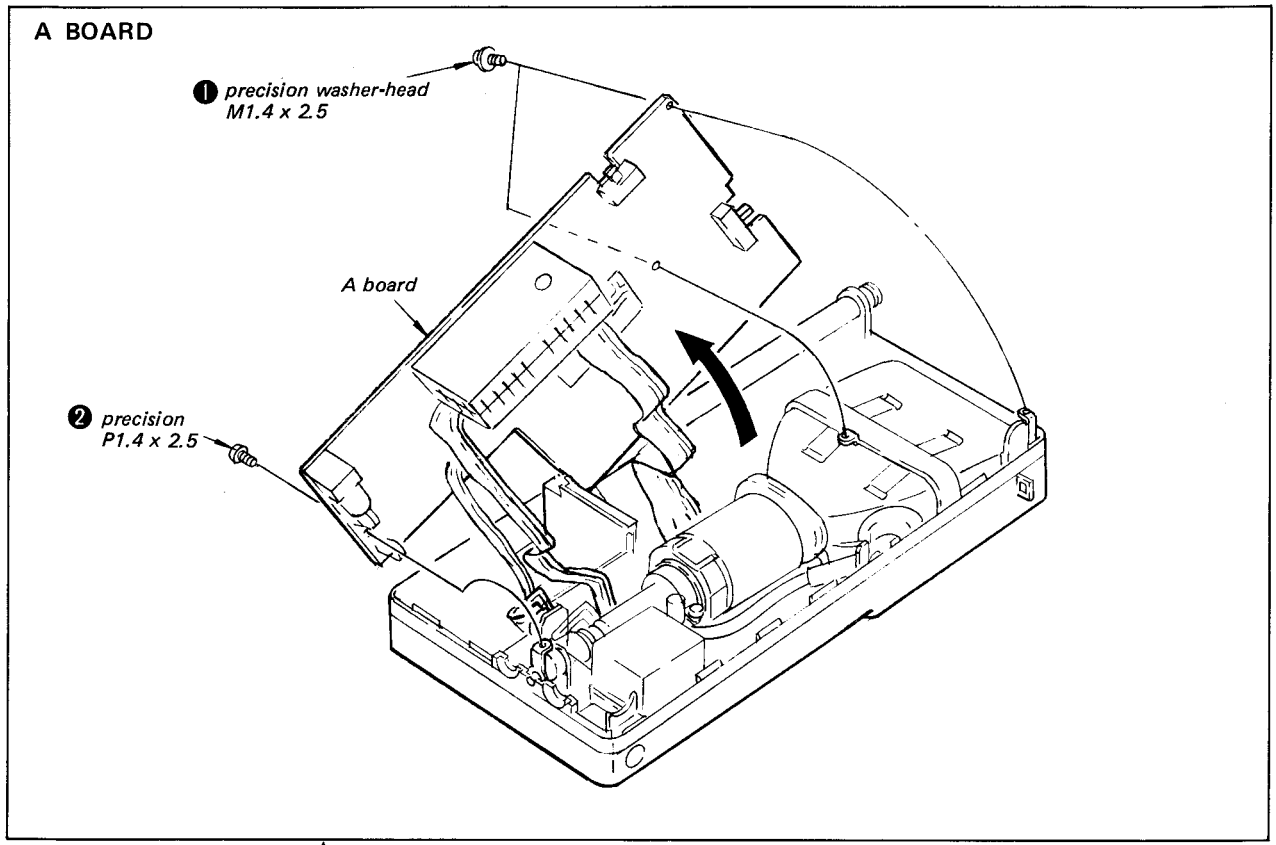
LOWER CABINET



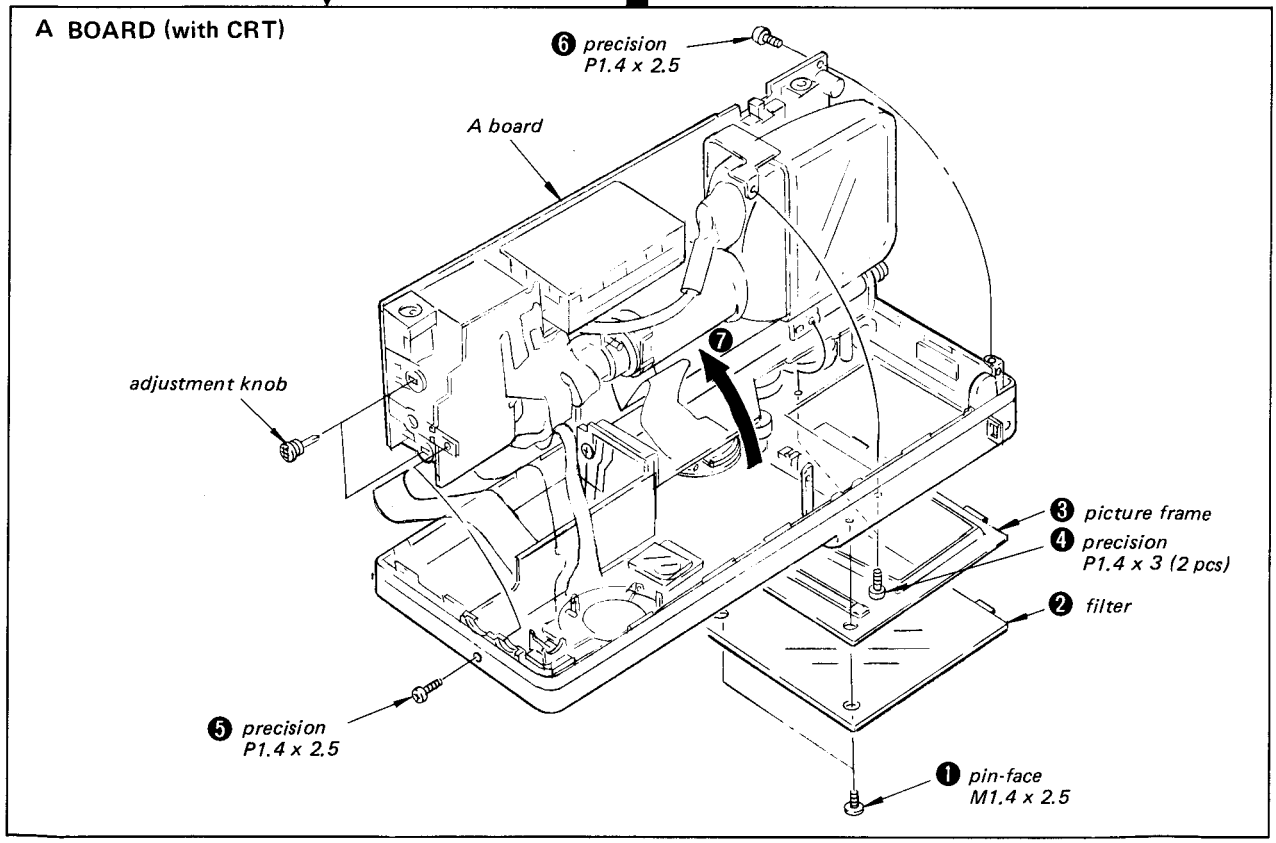
TELESCOPIC ANTENNA



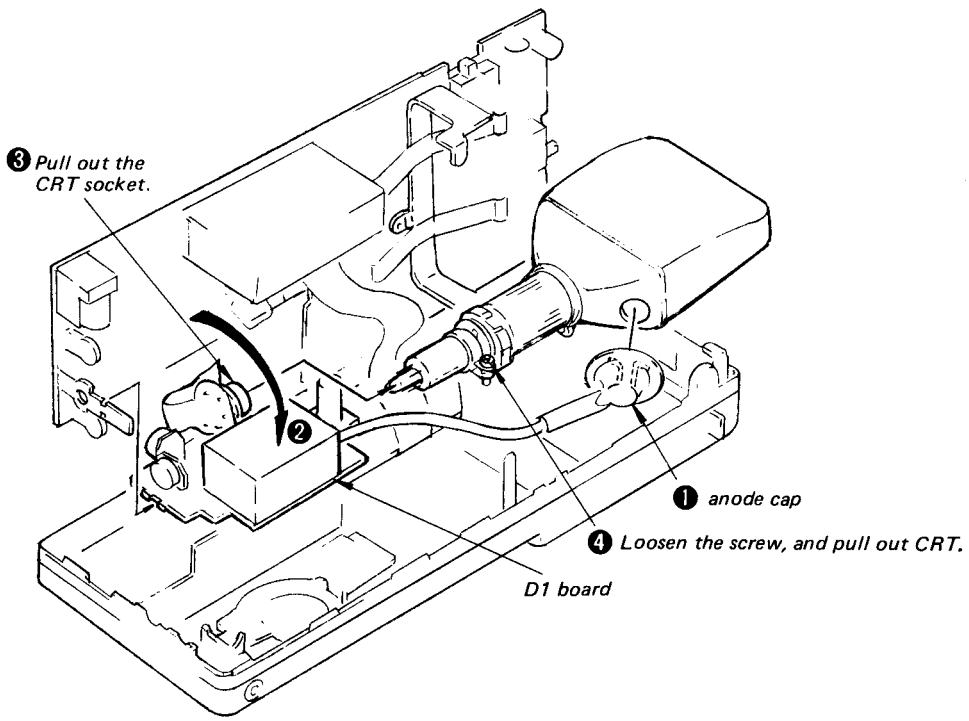
A BOARD



A BOARD (with CRT)

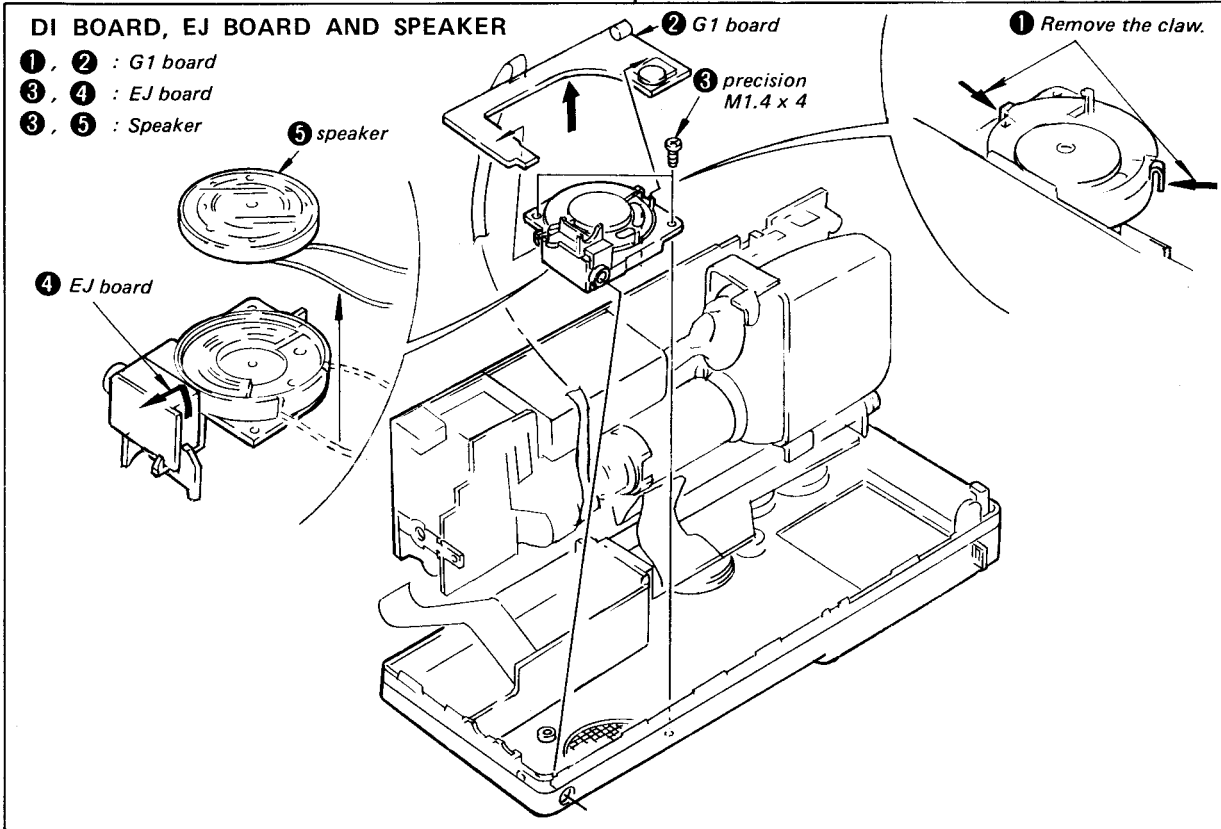


CRT (V901)

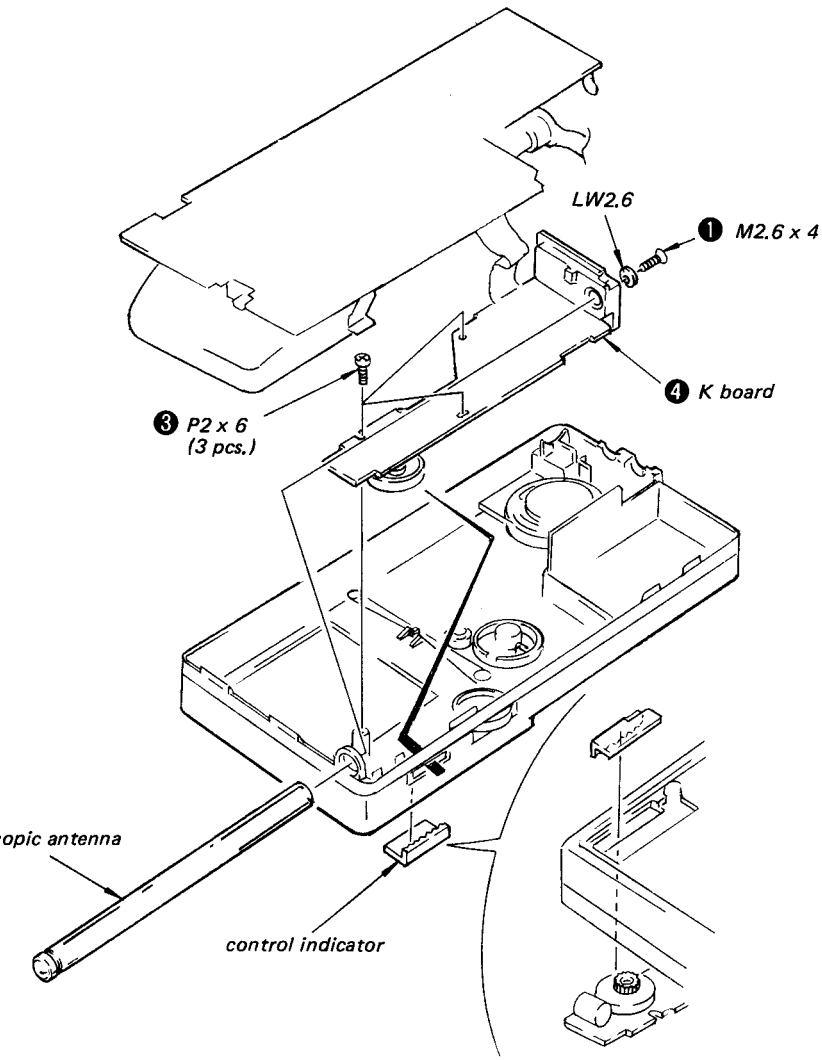


DI BOARD, EJ BOARD AND SPEAKER

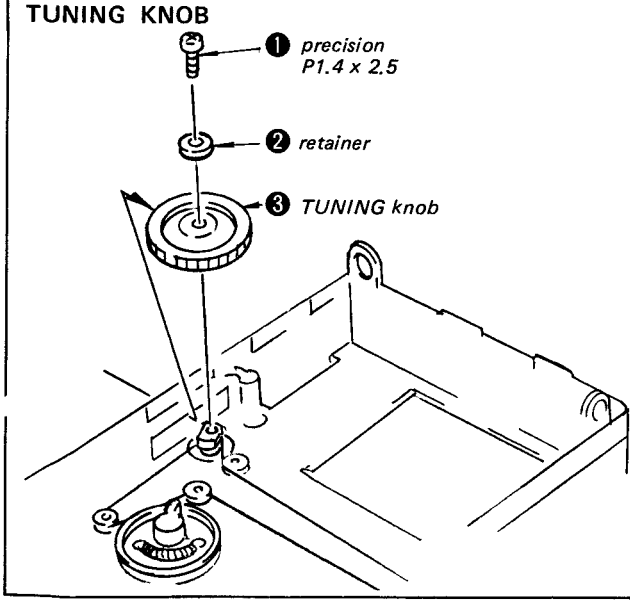
❶, ❷ : G1 board
❸, ❹ : EJ board
❸, ❺ : Speaker



K BOARD



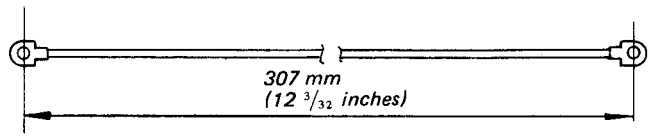
TUNING KNOB



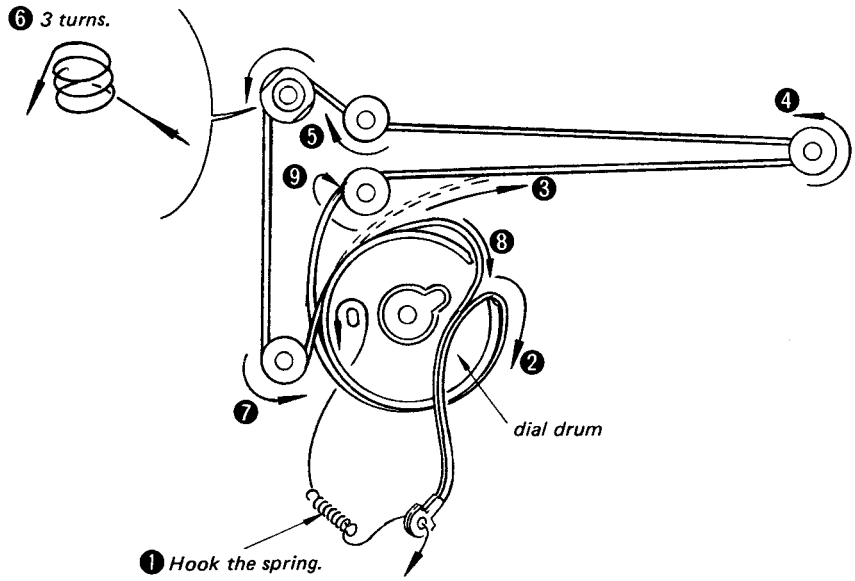
DIAL CORD STRINGING
(See page 13)

2-2. DIAL CORD STRINGING

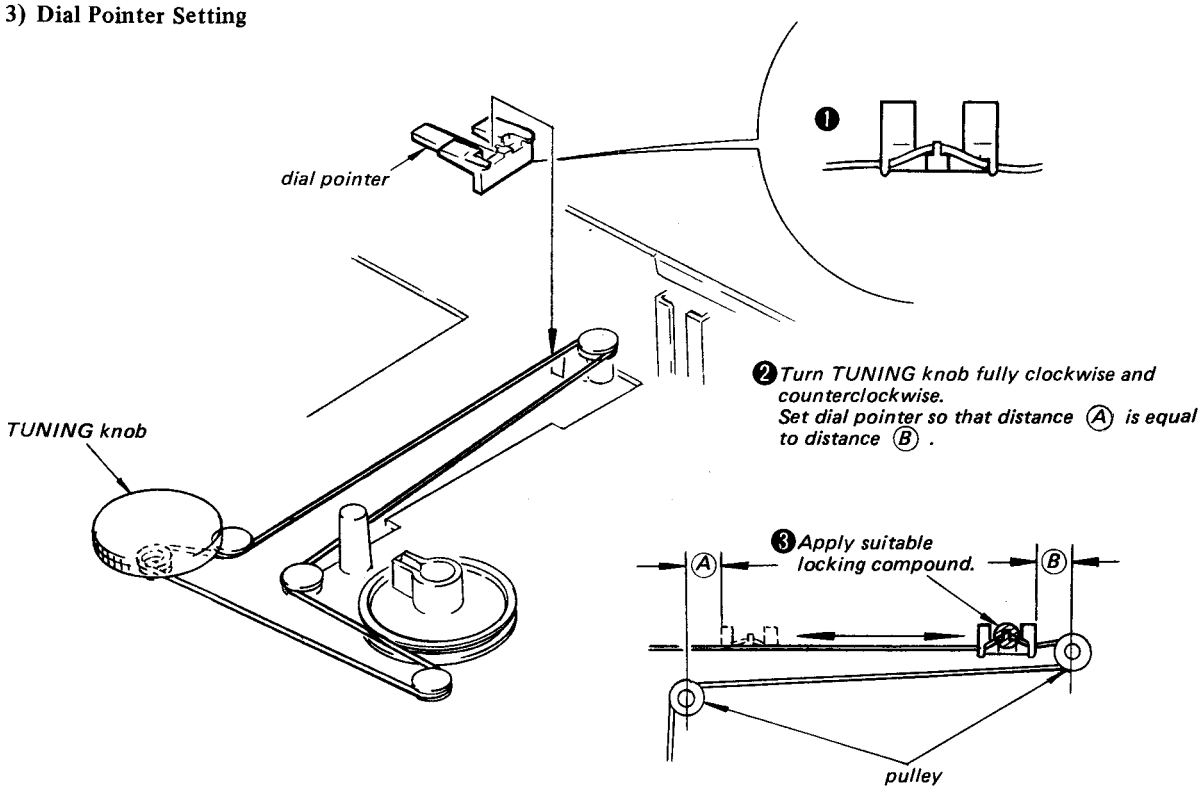
1) Dial Cord Preparation



2) Dial Cord Stringing



3) Dial Pointer Setting



SECTION 3
ADJUSTMENTS

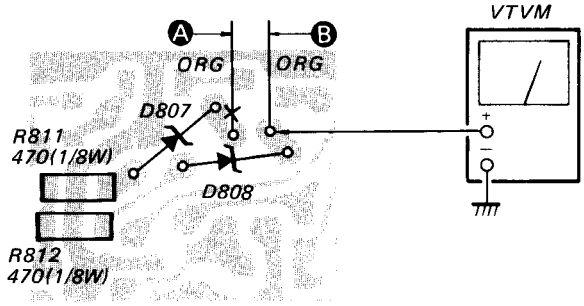
When repairing the following parts, make sure of the operation of high-voltage hold down circuit.

Repairing portion:

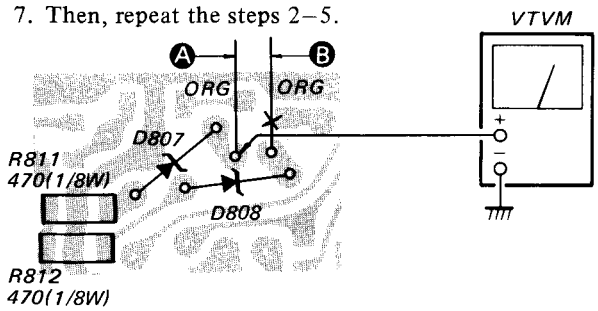
- Circuit around Q803
- D807, 808, R811, 812 replacement
- Circuit around Q601, 602

Procedure:

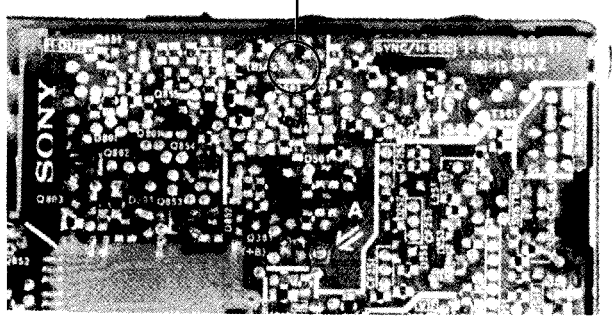
1. Unsolder the lead wire Ⓐ of A board.
2. Supply the voltage from DC IN 6 V jack so that the VTVM reads 7.58 V.
3. Confirm that the raster appears at that time.
4. Supply the voltage from DC IN 6 V jack so that the VTVM reads 8.57 V.
5. Confirm that the raster disappears at that time.



6. Solder the lead wire Ⓐ and unsolder the lead wire Ⓑ
7. Then, repeat the steps 2–5.



8. After confirming, solder the lead wire Ⓑ .

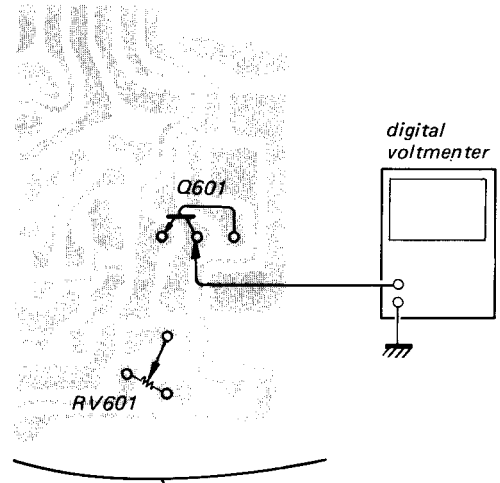


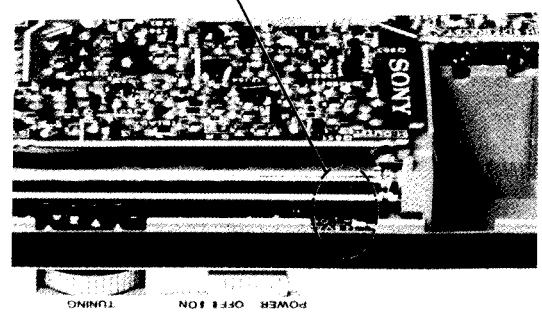
1. Test Equipment Required
   - regulated power supply
   - color-bar/pattern generator
   - frequency counter
   - digital voltmeter
   - VTVM
2. Input Signal
   a cross-hatch, a color-bar or an off-air signal.
3. These adjustment should be performed with 6 V dc unless otherwise noted.

4.8 V Adjustment

Adjust RV601 for 4.8 V reading on digital voltmeter.

[K BOARD]

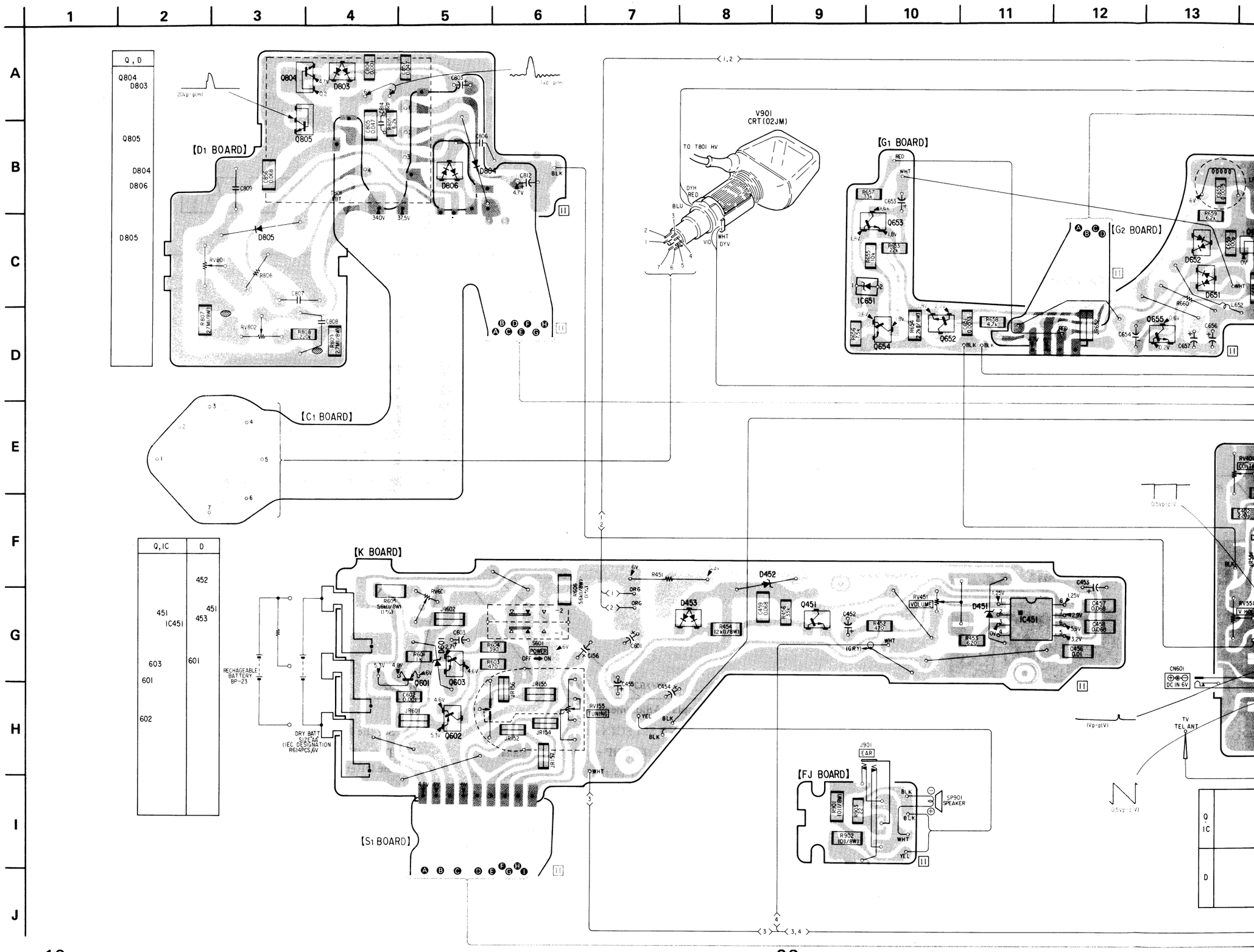




4-1. MOUNTING DIAGRAM

– Conductor Side –

● Refer to page 26 for semiconductor lead layouts.



Q, D
Q804 D803
Q805
D804
D806
D805

Q, IC	D
	452
451 IC451	451 453
603	601
601	
602	

Note:

- ○—: parts extracted from the component side.
- ●—: parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ▒▒: flexible pattern.
- ▒▒: B + pattern

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

A B C D E F G H I J

【A BOARD】

【G2 BOARD】

【G2 BOARD】

【C1 BOARD】

【S1 BOARD】

VHF/UHF TUNER UNIT

Q,IC	D
653	652
656	651
IC651	
652	
654 655	

| | | |

Horizontal Alignment Adjustment

1. Loosen the adjustment screw.
2. Tune in an off-the-air signal adjust deflection yoke for optimum picture.
3. Tighten the screw after the adjustment.

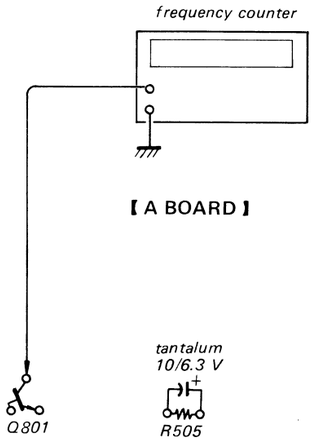
Centering Adjustment

1. Turn the socket of CRT toward the north.
2. Tune in an off-the-air signal.
3. Adjust the centering magnet so that the picture is in the center.

Horizontal Frequency (H·HOLD) Adjustment

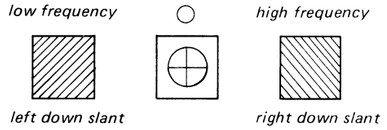
When using frequency counter:

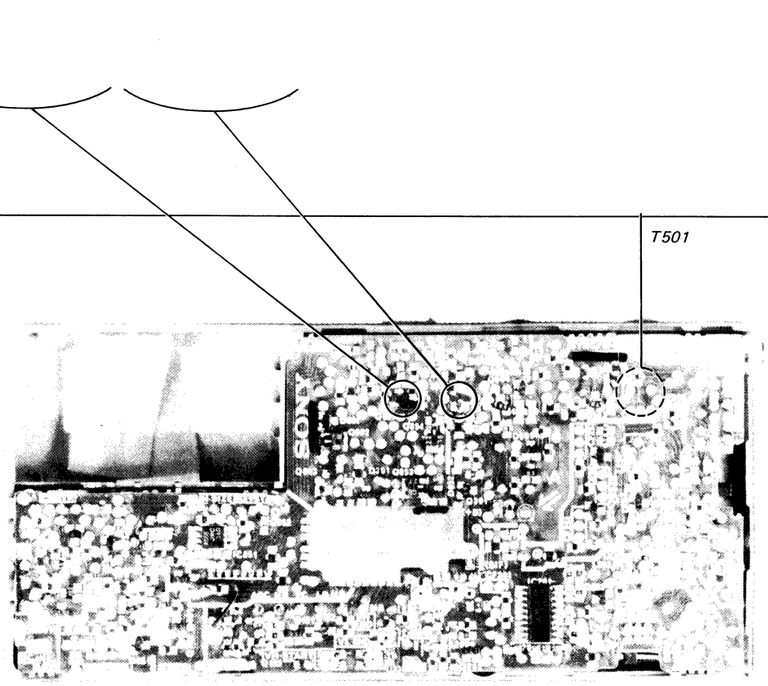
1. Connect a 10 μF 6.3 V tantalum capacitor in parallel with R505.
2. Adjust T501 for 15.67–15.69 kHz reading on frequency counter.



When using an off-the-air signal:

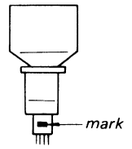
1. Connect a 10 μF 6.3 V tantalum capacitor in parallel with R505.
2. Tune in an off-the-air signal.
3. Adjust T501 for the optimum picture.





BRT Adjustment

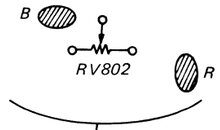
1. Bridge the pattern according to the mark on the neck of the CRT.



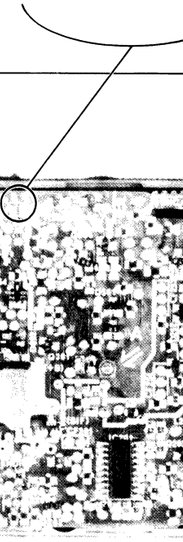
CRT	A board	D1 board
red	R	R
green or no mark	R	B
blue	B	B

2. Connect VTVM across R874 and adjust RV802 for 10.2 – 10.8 V reading on VTVM.

【D1 BOARD】



【A BOARD】



Focus Adjustment

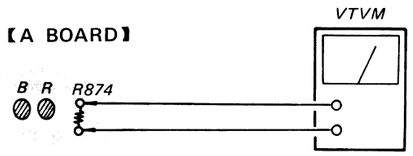
1. Set the power supply voltage 4.5 V.
2. Tune in an off-the-air signal.
3. Adjust RV801 for the best focus at the center of the picture.

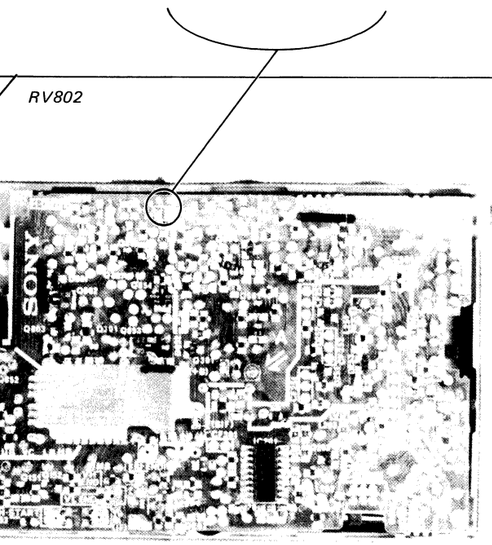
k on the

oard
R
3
3

: RV802

【A BOARD】

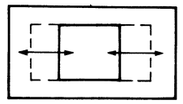




enter of

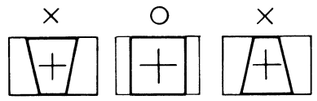
Horizontal Amplitude (H·SIZE) Adjustment

1. Tune in an off-the-air signal.
2. Adjust RV852 for the best horizontal amplitude.



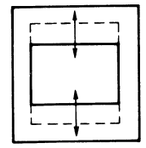
Keystone Correction (KEYST) Adjustment

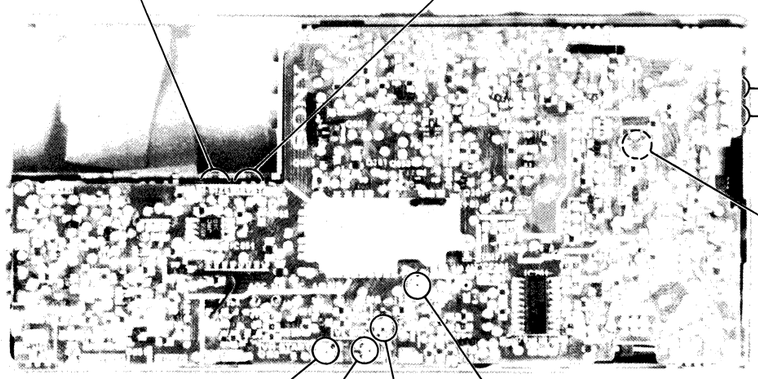
1. Tune in an off-the-air signal.
2. Adjust RV851 for the optimum picture.



Vertical Amplitude (V·SIZE) Adjustment

1. Set the SYSTEM SELECT switch to CCIR or UK.
2. Tune in an off-the-air signal.
3. Adjust RV553 for the best vertical amplitude.
4. Set the SYSTEM SELECT switch to USA.
5. Tune in an off-the-air signal.
6. Adjust RV552 for the best vertical amplitude.





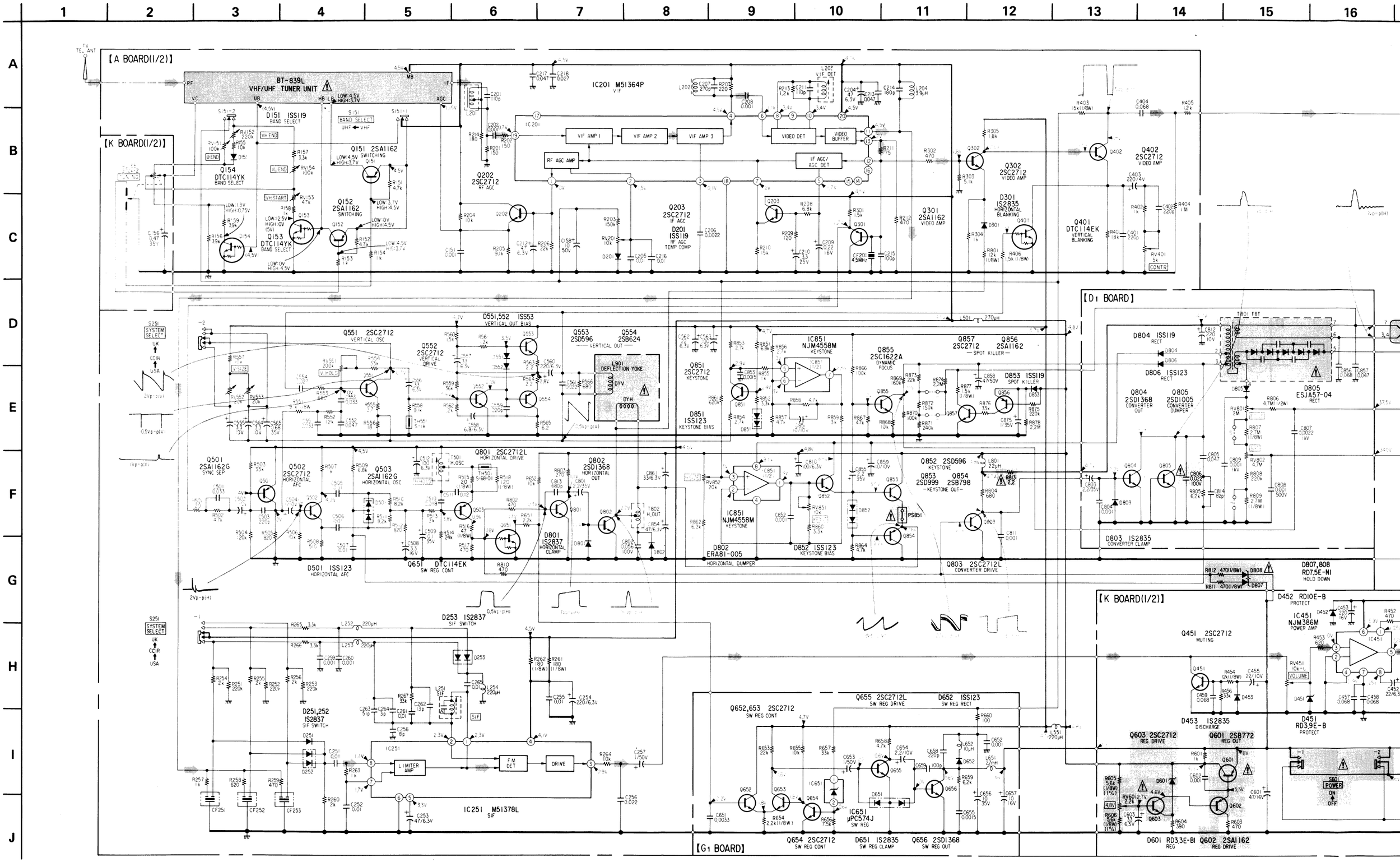
SIF Adjustment

1. Tune in an off-the-air signal.
2. Adjust L251 for maximum and clearest sound.

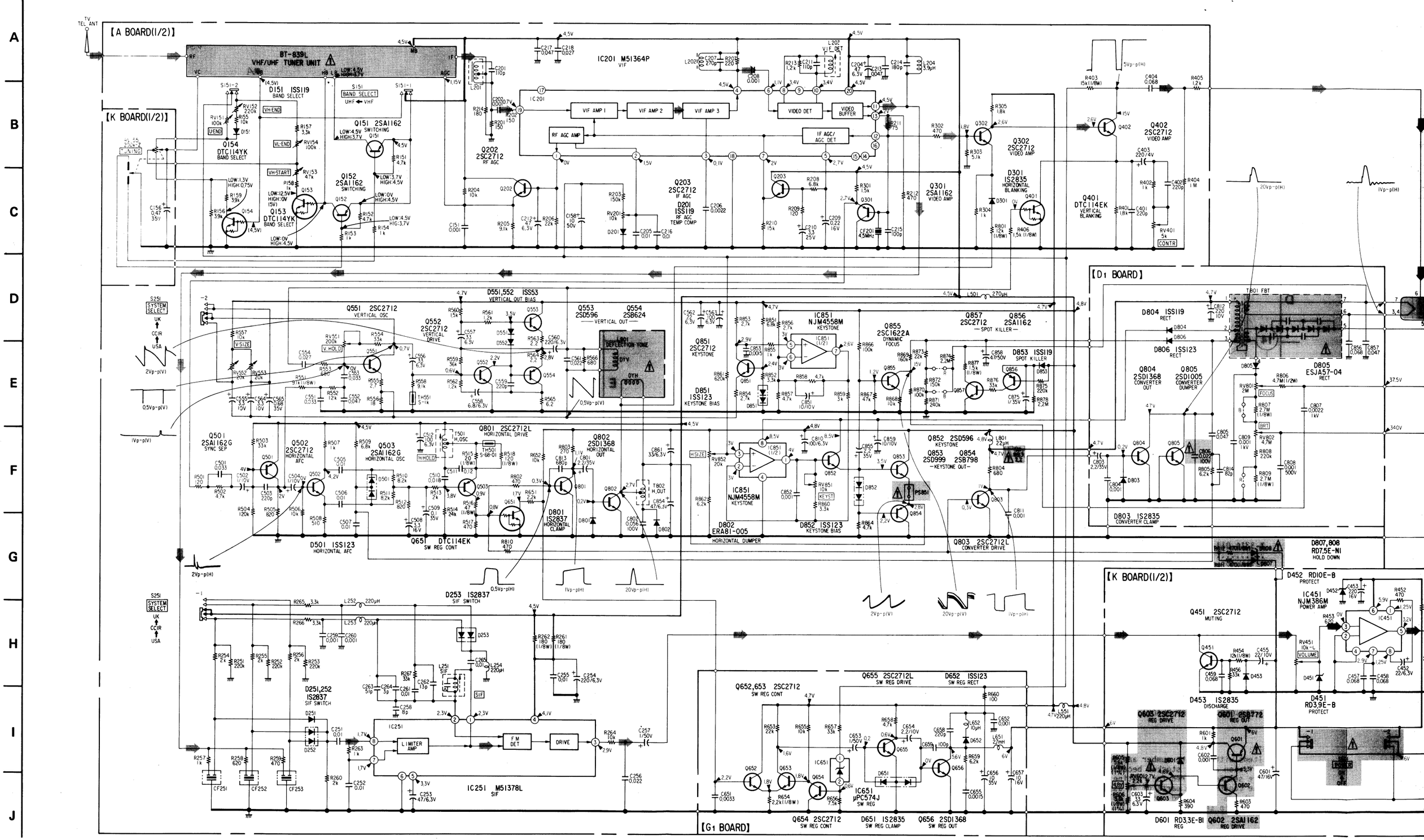
Channel Display Adjustment

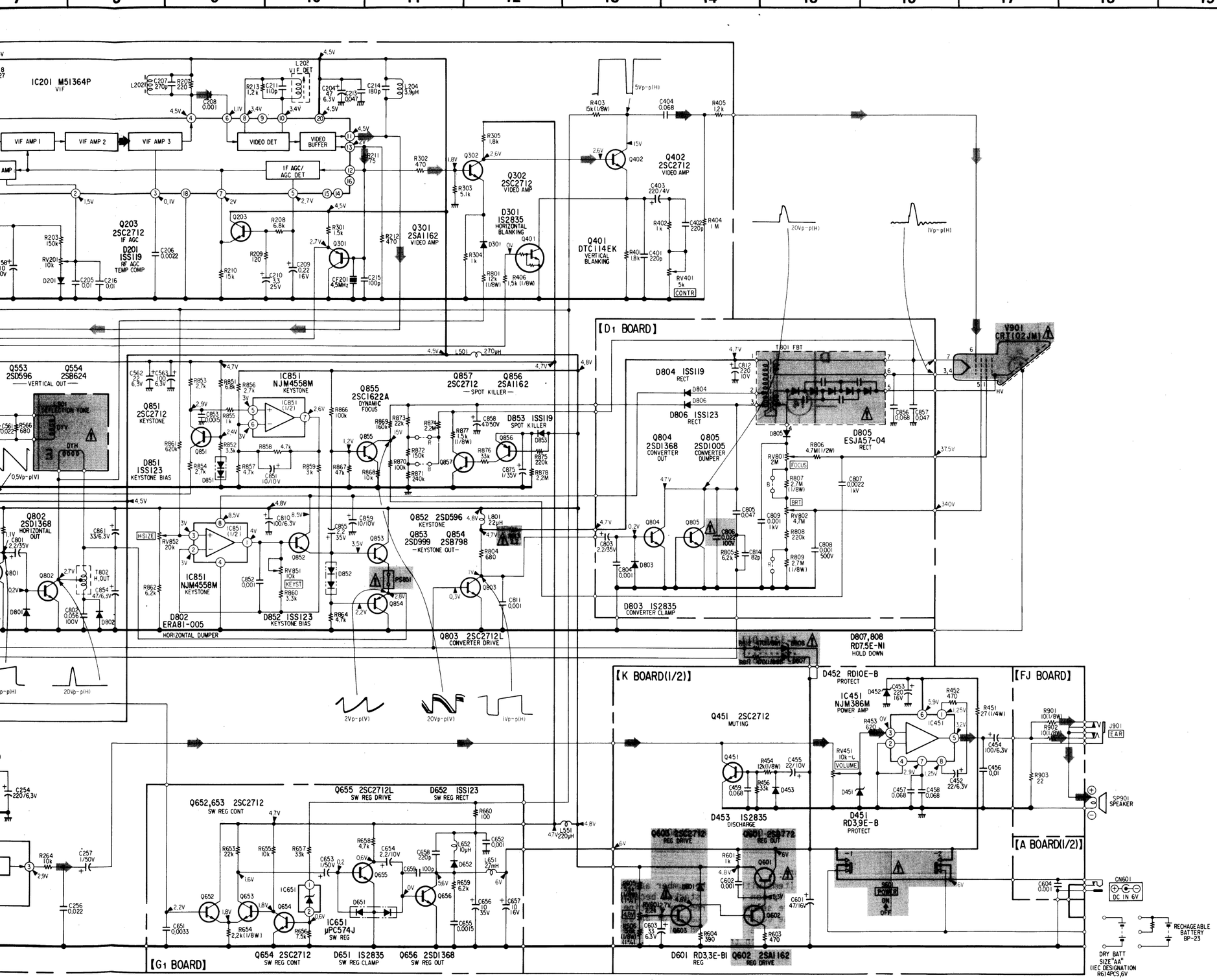
1. Set the BAND SELECT switch to VHF.
2. Tune the set to the VHF channel 2 TV signal.
3. Set the dial pointer to the letter "2" on dial scale.
4. Turn the TUNING knob, set the dial pointer to the letter "6" on dial scale.
5. Adjust RV154 for the optimum picture.
   . . . . . (VL·END)
6. Set the BAND SELECT switch to UHF.
7. Turn the TUNING knob, set the dial pointer to the letter "83" or "70" on dial scale.
8. Adjust RV151 for the optimum picture.
   . . . . . (U·END)
9. Tune the set to the UHF channel 30 or 60 TV signal, and confirm that the difference between the dial scale and dial pointer is within ±3 channels.
10. Set the BAND SELECT switch to VHF.
11. Turn the TUNING knob, set the dial pointer to the letter "7" on dial scale.
12. Adjust RV153 for the optimum picture.
    . . . . . (VH·START)
13. Turn the TUNING knob, set the dial pointer to the letter "12" on dial scale.
14. Adjust RV152 for the optimum picture.
    . . . . . (VH·END)
15. After the adjustment, lock the dial cord and dial pointer with suitable locking compound.

4-2. SCHEMATIC DIAGRAM



4-2. SCHEMATIC DIAGRAM





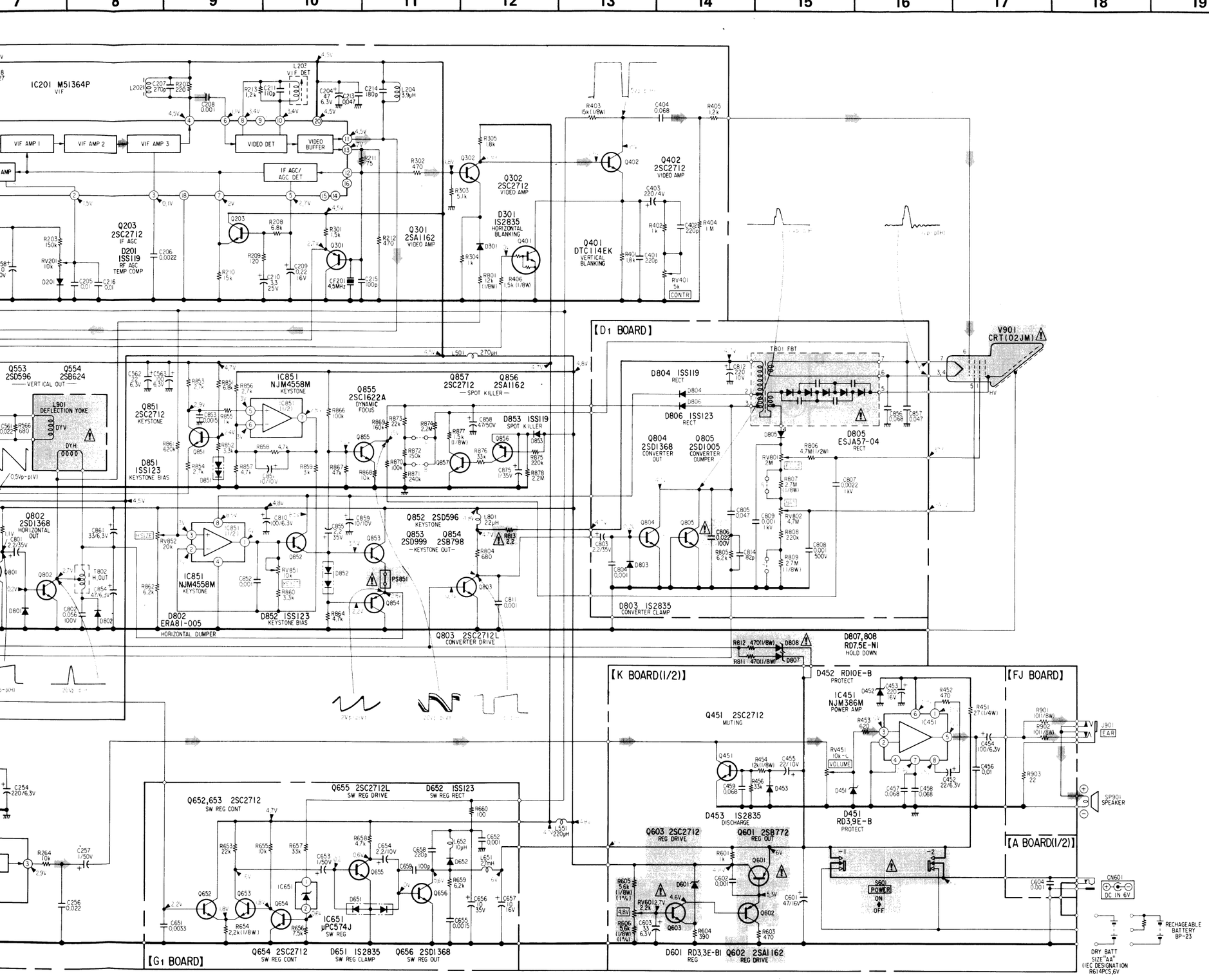
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/10 W unless otherwise noted. kΩ: 1000 Ω, MΩ: 1000 kΩ
- ▭ : adjustment for repair.
- ▬ : B+ bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under detuned conditions
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are measured to ground with oscilloscope.

Note: Voltages are measured with a VOM (50kΩ/V).

- ➡ : signal path.



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

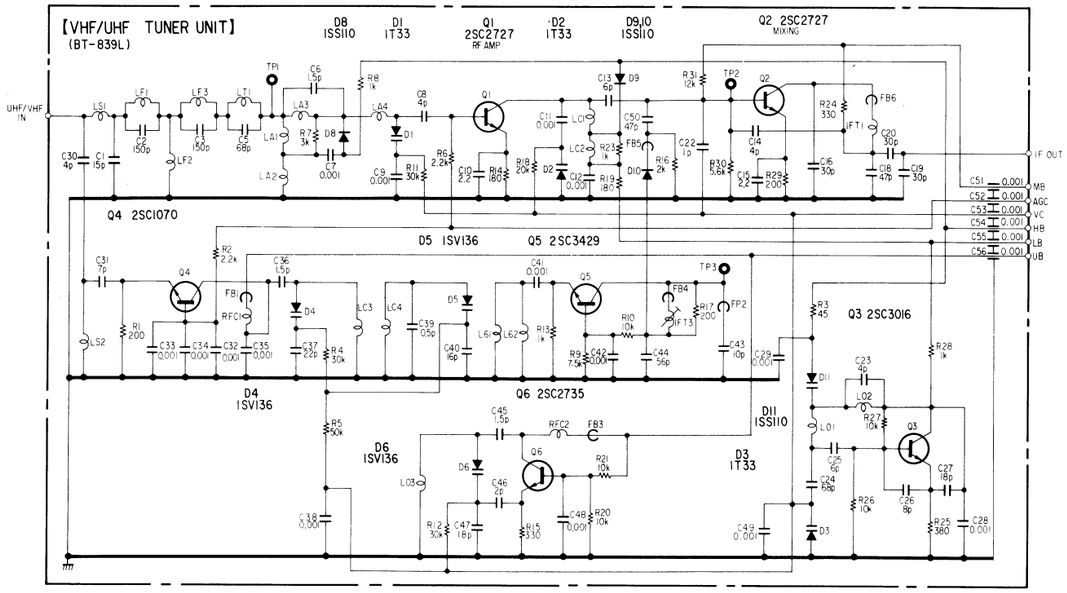
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/10 W unless otherwise noted. kΩ: 1000 Ω, MΩ: 1000 kΩ
- ▭ : adjustment for repair.
- ▬ : B+ bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under detuned conditions.
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are measured to ground with oscilloscope.

Note: Voltages are measured with a VOM (50kΩ/V).

- ➡ : signal path.

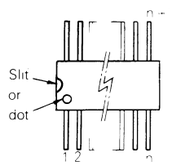
4-3. VHF/UHF TUNER UNIT SCHEMATIC DIAGRAM

- BT-839L

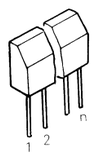


- Semiconductor Lead Layouts

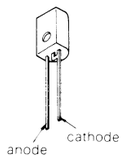
M51364P
NJM386M
NJM4558M



M51378L

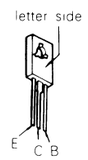


μPC574J



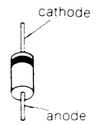
2SA1162
2SB624
2SC1622A
2SC1623
2SC2712
2SD596
DTC114EK
DTC114YK

2SB772

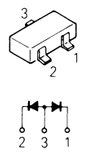


2SB798
2SD999
2SD1005
2SD1368

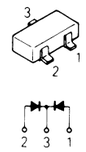
1S1555
1SS119
ERA81-005
ESJA57-04
RD3.3E-B1
RD3.9E-B
RD7.5E-N1
RD10E



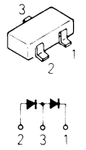
1S2835



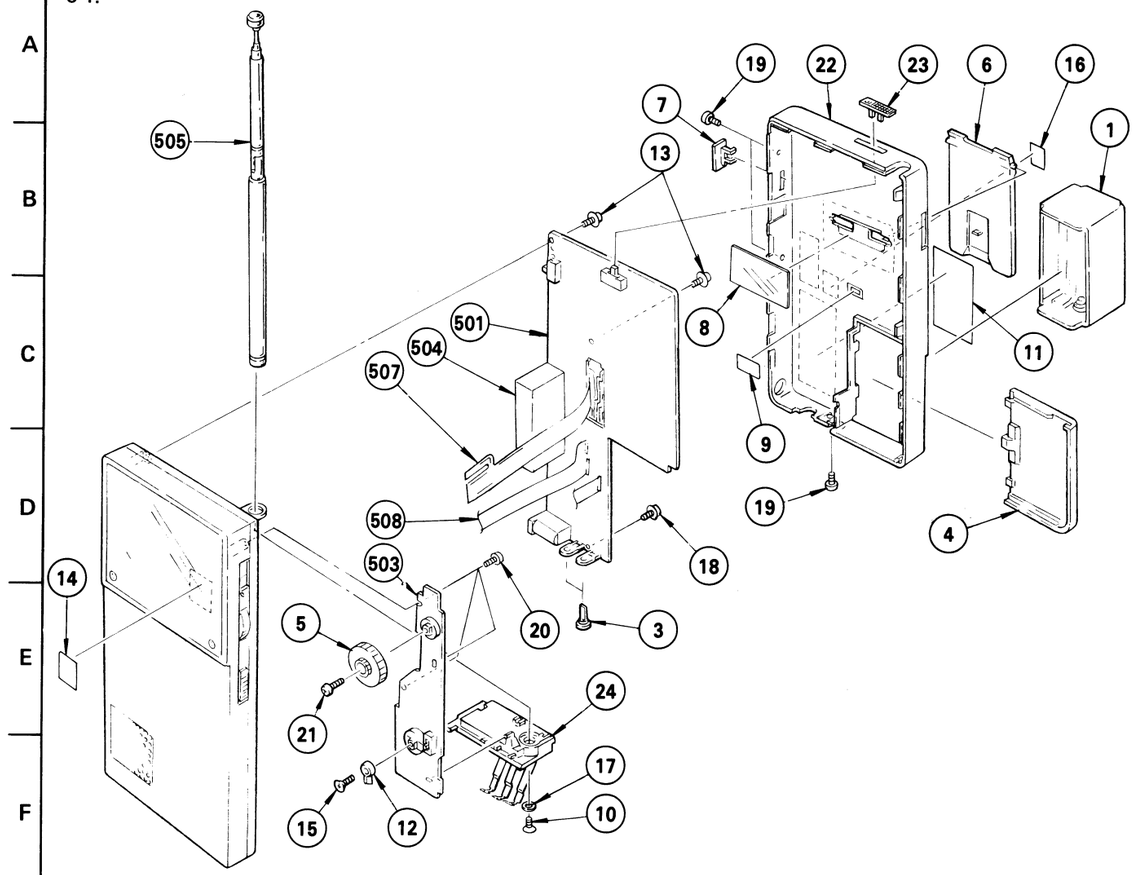
1S2837



1SS123



5-1.



No.	Part No.	Description
1	X-3314-011-0	HOLDER ASSY, BATTERY
2	.....	
3	3-314-022-00	(SILVER)...KNOB, ADJUSTMENT (V HOLD, CONTR)
3	3-314-022-11	(BLACK)....KNOB, ADJUSTMENT (V HOLD, CONTR)
4	3-314-023-31	(SILVER)...LID, BATTERY CASE
4	3-314-023-11	(BLACK)....LID, BATTERY CASE
5	3-314-026-00	(SILVER)...KNOB, CONTROL (VOLUME)
5	3-314-026-11	(BLACK)....KNOB, CONTROL (VOLUME)
6	3-314-029-03	(SILVER)...STAND
6	3-314-029-13	(BLACK)....STAND
7	3-314-039-00	(SILVER)...KNOB (B), SLIDE (BAND SELECT)
7	3-314-039-11	(BLACK)....KNOB (B), SLIDE (BAND SELECT)
8	*3-314-065-00	SHEET (A), PROTECTION
9	3-314-066-00	SHEET (B), PROTECTION
10	7-621-775-10	SCREW +B 2.6X4
11	3-314-081-01	(US).....LABEL, MODEL NUMBER
11	3-314-082-01	(AEP:SILVER,E)...LABEL, MODEL NUMBER
11	3-314-082-11	(AEP:BLACK).....LABEL, MODEL NUMBER
12	3-319-103-01	JOINT, TUNING
13	3-703-502-21	SCREW (M1.4X2.5), WASHER-HEAD, PRECISION
14	3-703-710-01	STICKER, SONY SYMBOL (12)
15	3-880-990-00	SCREW (M1.7X3), FLAT, (+) SPECIAL
16	4-310-379-00	(AEP)....LABEL, NEMKO
17	7-623-421-07	LW 2.6, TYPE B
18	7-627-850-17	SCREW, PRECISION +P 1.4X2.5
19	7-627-850-17	(SILVER)...SCREW, PRECISION +P 1.4X2.5
19	7-627-850-18	(BLACK)....SCREW, PRECISION +P 1.4X2.5
20	7-685-104-14	SCREW +P 2X6 TYPE2 NON-SLIT
21	7-685-773-04	+PTT 1.7X4
22	3-314-033-41	(SILVER)...CABINET (LOWER)
22	3-314-033-51	(BLACK)....CABINET (LOWER)
23	3-314-087-01	(SILVER)...KNOB (SYSTEM SELECT)
23	3-314-087-11	(BLACK)....KNOB (SYSTEM SELECT)
24	X-3314-013-1	(SILVER)...PIECE SUB ASSY, CONTACT
24	X-3314-039-1	(BLACK)....PIECE SUB ASSY, CONTACT

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

5-2.

No.
51 *
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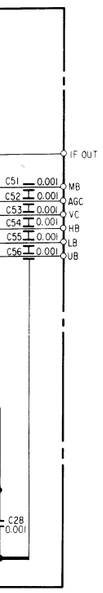
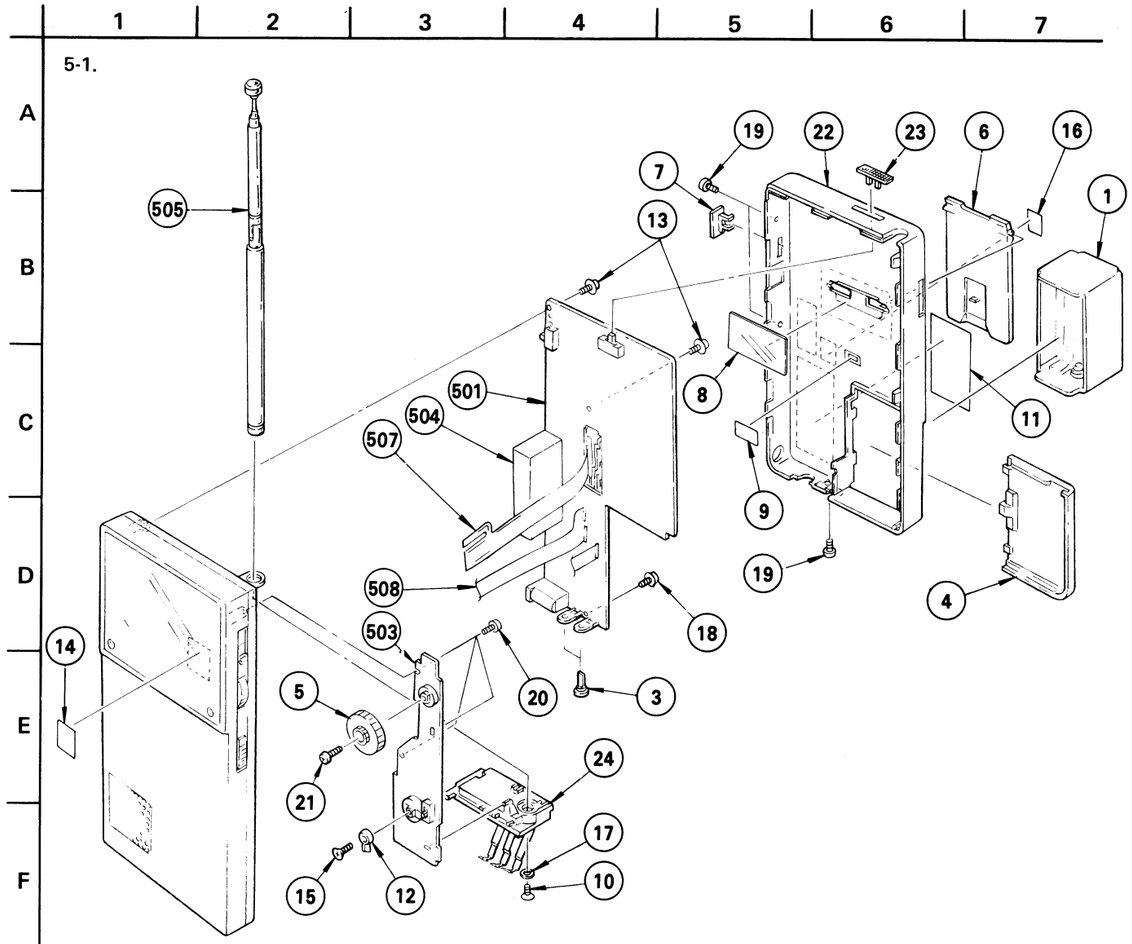
NOTE
- It cr ar
- Th pa nu



5-1.



No.	Part No.	Description
1	X-3314-011-0	HOLDER ASSY, BATTERY
2	.....	
3	3-314-022-00	(SILVER)...KNOB, ADJUSTMENT (V HOLD, CONTR)
3	3-314-022-11	(BLACK)....KNOB, ADJUSTMENT (V HOLD, CONTR)
4	3-314-023-31	(SILVER)...LID, BATTERY CASE
4	3-314-023-11	(BLACK)....LID, BATTERY CASE
5	3-314-026-00	(SILVER)...KNOB, CONTROL (VOLUME)
5	3-314-026-11	(BLACK)....KNOB, CONTROL (VOLUME)
6	3-314-029-03	(SILVER)...STAND
6	3-314-029-13	(BLACK)....STAND
7	3-314-039-00	(SILVER)...KNOB (B), SLIDE (BAND SELECT)
7	3-314-039-11	(BLACK)....KNOB (B), SLIDE (BAND SELECT)
8	*3-314-065-00	SHEET (A), PROTECTION
9	3-314-066-00	SHEET (B), PROTECTION
10	7-621-775-10	SCREW +B 2.6X4
11	3-314-081-01	(US).....LABEL, MODEL NUMBER
11	3-314-082-01	(AEP:SILVER,E)...LABEL, MODEL NUMBER
11	3-314-082-11	(AEP:BLACK).....LABEL, MODEL NUMBER
12	3-319-103-01	JOINT, TUNING
13	3-703-502-21	SCREW (M1.4X2.5), WASHER-HEAD, PRECISION
14	3-703-710-01	STICKER, SONY SYMBOL (12)
15	3-880-990-00	SCREW (M1.7X3), FLAT, (+) SPECIAL
16	4-310-379-00	(AEP)....LABEL, NEMKO
17	7-623-421-07	LW 2.6, TYPE B
18	7-627-850-17	SCREW, PRECISION +P 1.4X2.5
19	7-627-850-17	(SILVER)...SCREW, PRECISION +P 1.4X2.5
19	7-627-850-18	(BLACK)....SCREW, PRECISION +P 1.4X2.5
20	7-685-104-14	SCREW +P 2X6 TYPE2 NON-SLIT
21	7-685-773-04	+PTT 1.7X4
22	3-314-033-41	(SILVER)...CABINET (LOWER)
22	3-314-033-51	(BLACK)....CABINET (LOWER)
23	3-314-087-01	(SILVER)...KNOB (SYSTEM SELECT)
23	3-314-087-11	(BLACK)....KNOB (SYSTEM SELECT)
24	X-3314-013-1	(SILVER)...PIECE SUB ASSY, CONTACT
24	X-3314-039-1	(BLACK)....PIECE SUB ASSY, CONTACT

NOTE:
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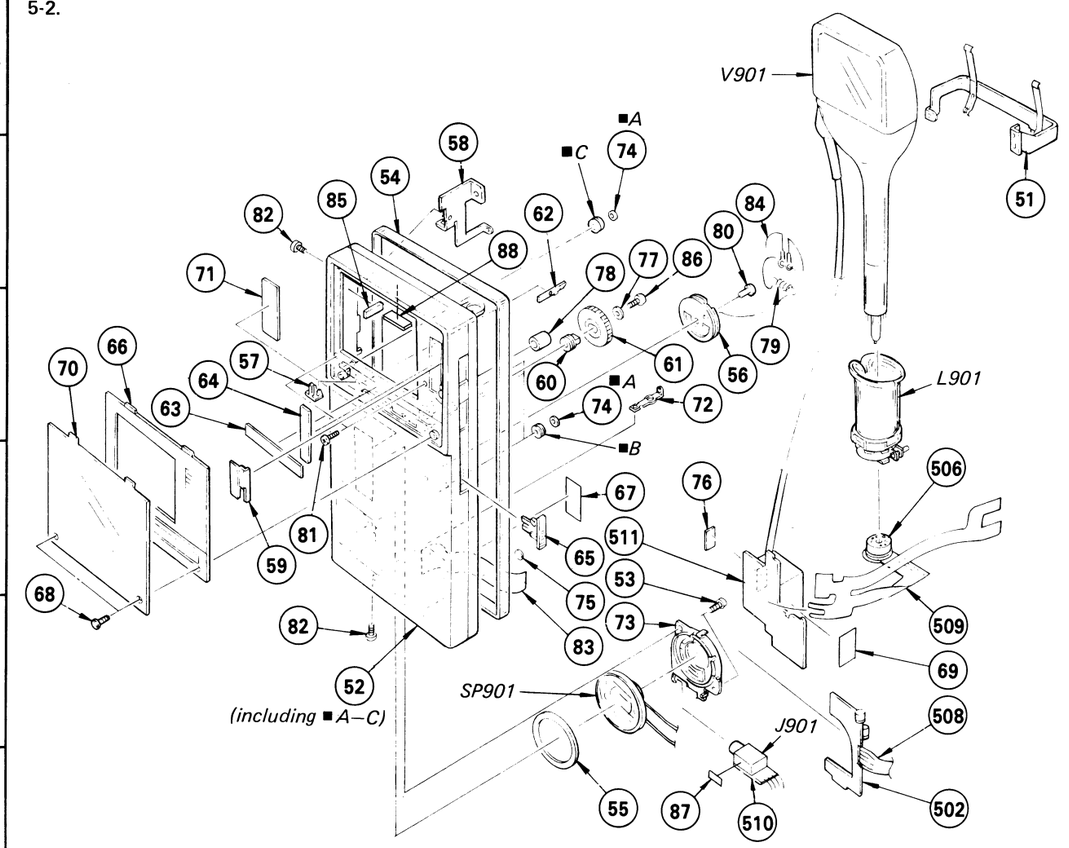
5-2.



No.	Part No.	Description
51	*X-3314-002-0	HOLDER ASSY, B TUBE
52	X-3314-034-1	(SILVER)...CABINET (UPPER) ASSY
52	X-3314-033-1	(BLACK)....CABINET (UPPER) ASSY
53	3-309-597-31	SCREW (M1.4X4), TAPPING, PRECISION
54	3-314-002-00	STRIP, ORNAMENTAL
55	3-314-005-11	CUSHION, SPEAKER
56	3-314-007-00	DRUM, DIAL
57	3-314-008-00	POINTER, DIAL
58	3-314-010-00	BRACKET, STRAP
59	*3-314-011-00	INDICATOR, CONTROL
60	3-314-012-00	SHAFT, DIAL
61	3-314-013-00	(SILVER)...KNOB (TUNING)
61	3-314-013-11	(BLACK)....KNOB (TUNING)
62	*3-314-017-00	PLATE (B), NUT
63	3-314-018-00	SHEET (A), ORNAMENTAL
64	3-314-019-00	SHEET (B), ORNAMENTAL
65	3-314-027-00	(SLIVER)...KNOB (A), SLIDE (POWER)
65	3-314-027-11	(BLACK)....KNOB (A), SLIDE (POWER)
66	3-314-028-21	FRAME, PICTURE
67	3-314-050-00	LABEL, CAUTION, POWER
68	3-314-055-00	SCREW (M1.4X2.5), PIN-FACE
69	*3-314-056-00	INSULATOR
70	3-314-061-00	FILTER
71	3-314-062-00	LABEL, CAUTION, SERVICE
72	*3-319-104-01	PLATE (A), NUT
73	3-319-110-01	HOLDER, SPEAKER
74	3-489-108-00	WASHER 1.6, NYLON
75	3-527-126-00	MARK, BATTERY CASE
76	3-527-213-00	LABEL, SERIAL NUMBER
77	3-569-403-00	RETAINER
78	*3-576-954-00	RETAINER, SOLENOID
79	4-875-562-00	SPRING, TENSION
80	7-625-712-20	RIVET 2X4
81	7-627-850-27	SCREW, PRECISION +P 1.4X3
82	7-627-850-97	(SILVER)...SCREW, PRECISION +P 1.4X2.2
82	7-627-850-98	(BLACK)....SCREW, PRECISION +P 1.4X2.2
83	9-911-816-02	CLOTH, DRAWER, BATTERY
84	9-911-825-32	STRING DIAL 0.3DIA
85	9-911-844-XX	RUBBER, BRAKE (t=2)
86	7-627-850-17	SCREW, PRECISION +P 1.4X2.5
87	3-831-441-XX	CUSHION (t=0.5)
88	9-911-863-XX	SPACER, HOLDER, LAMP

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SECTION 6
ELECTRICAL PARTS LIST

ELECTRICAL PARTS

Ref.No.	Part No.	Description		
501	*A-3015-261-A	PC BOARD ASSY, A		
502	*A-3015-262-A	PC BOARD ASSY, G1		
503	*A-3015-269-A	MOUNT ASSY, K		
504	⚠1-463-533-11	TUNER UNIT (BT-839L)		
505	1-501-278-00	ANTENNA, TELESCOPIC		
506	1-526-736-00	SOCKET, CRT		
507	1-612-238-11	PC BOARD, S		
508	1-612-239-11	PC BOARD, G2		
509	1-612-241-11	PC BOARD, C		
510	*1-612-599-11	PC BOARD, EJ		
511	*1-612-603-11	PC BOARD, D1		
C151	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C156	1-131-345-00	TANTALUM 0.47MF	20%	35V
C158	1-124-261-00	ELECT 10MF	20%	50V
C201	1-163-118-00	CERAMIC CHIP 110PF	5%	50V
C202	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C204	1-131-387-00	TANTALUM 47MF	20%	6.3V
C205	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C206	1-163-027-00	CERAMIC CHIP 0.0022MF		50V
C207	1-163-127-00	CERAMIC CHIP 270PF	5%	50V
C208	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C209	1-131-453-00	TANTALUM 0.22MF	20%	16V
C210	1-131-356-00	TANTALUM 3.3MF	20%	25V
C211	1-163-118-00	CERAMIC CHIP 110PF	5%	50V
C212	1-124-224-00	ELECT 47MF	20%	6.3V
C213	1-163-013-00	CERAMIC CHIP 0.0022MF	10%	50V
C214	1-163-187-00	CERAMIC CHIP 180PF	5%	50V
C215	1-102-975-00	CERAMIC 100PF	10%	50V
C216	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C217	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C218	1-163-064-00	CERAMIC CHIP 0.027MF	10%	50V
C251	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C252	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C253	1-124-224-00	ELECT 47MF	20%	6.3V
C254	1-124-140-00	ELECT 220MF	20%	6.3V
C255	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C256	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C257	1-124-255-00	ELECT 1MF	20%	50V
C258	1-163-351-00	CERAMIC CHIP 8PF		50V
C259	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C260	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C261	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C262	1-163-096-00	CERAMIC CHIP 13PF	5%	50V
C263	1-163-110-00	CERAMIC CHIP 51PF	5%	50V
C264	1-163-086-00	CERAMIC CHIP 3PF		50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description		
C265	1-163-031-00	CERAMIC CHIP 0.01MF		50V
C401	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C402	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C403	1-124-413-00	ELECT 220MF	20%	4V
C404	1-163-076-00	CERAMIC CHIP 0.068MF		50V
C452	1-123-618-00	ELECT 22MF	20%	6.3V
C453	1-124-144-00	ELECT 220MF	20%	16V
C454	1-124-225-00	ELECT 100MF	20%	6.3V
C455	1-124-228-41	ELECT 22MF	20%	10V
C456	1-163-059-00	CERAMIC CHIP 0.01MF	10%	50V
C457	1-163-076-00	CERAMIC CHIP 0.068MF		50V
C458	1-163-076-00	CERAMIC CHIP 0.068MF		50V
C459	1-163-076-00	CERAMIC CHIP 0.068MF		50V
C501	1-163-074-00	CERAMIC CHIP 0.033MF		50V
C502	1-131-418-00	TANTALUM 1MF	20%	10V
C503	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C504	1-131-418-00	TANTALUM 1MF	20%	10V
C505	1-163-059-00	CERAMIC CHIP 0.01MF	10%	50V
C506	1-163-059-00	CERAMIC CHIP 0.01MF	10%	50V
C507	1-163-059-00	CERAMIC CHIP 0.01MF	10%	50V
C508	1-131-417-00	TANTALUM 3.3MF	20%	16V
C509	1-131-402-00	TANTALUM 0.1MF	20%	35V
C510	1-108-585-00	MYLAR 0.018MF	5%	50V
C511	1-130-496-00	MYLAR 0.12MF	5%	50V
C512	1-123-661-00	ELECT 100MF	20%	6.3V
C551	1-163-074-00	CERAMIC CHIP 0.033MF		50V
C552	1-163-075-00	CERAMIC CHIP 0.047MF		50V
C553	1-163-074-00	CERAMIC CHIP 0.033MF		50V
C554	1-163-064-00	CERAMIC CHIP 0.027MF	10%	50V
C555	1-131-501-00	TANTALUM 3.3MF	10%	10V
C556	1-124-229-00	ELECT 33MF	20%	6.3V
C557	1-131-386-00	TANTALUM 33MF	20%	6.3V
C558	1-131-423-00	TANTALUM 6.8MF	20%	6.3V
C559	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C560	1-124-140-00	ELECT 220MF	20%	6.3V
C561	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C562	1-131-385-00	TANTALUM 22MF	20%	6.3V
C563	1-124-225-00	ELECT 100MF	20%	6.3V
C564	1-131-501-00	TANTALUM 3.3MF	10%	10V
C565	1-131-346-00	TANTALUM 0.68MF	10%	35V
C601	1-124-236-00	ELECT 47MF	20%	16V
C602	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C603	1-124-229-00	ELECT 33MF	20%	6.3V
C604	1-163-205-00	CERAMIC CHIP 0.001MF	5%	50V
C651	1-163-015-00	CERAMIC CHIP 0.0033MF	10%	50V
C652	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V

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CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C653	1-124-255-00	ELECT	1MF	20%	50V
C654	1-131-419-00	TANTALUM	2.2MF	20%	10V
C655	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C656	1-124-247-00	ELECT	10MF	20%	35V
C657	1-124-233-00	ELECT	10MF	20%	16V
C658	1-163-189-00	CERAMIC CHIP	220PF	5%	50V
C659	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C801	1-131-349-00	TANTALUM	2.2MF	20%	35V
C802	1-106-214-00	MYLAR	0.056MF	5%	100V
C803	1-131-349-00	TANTALUM	2.2MF	20%	35V
C804	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C805	1-163-075-00	CERAMIC CHIP	0.047MF		50V
C806 ⚠	1-106-204-00	MYLAR	0.022MF	5%	100V
C807	1-162-147-00	CERAMIC	0.0022MF		1KV
C808	1-102-038-00	CERAMIC	0.001MF	99%	500V
C809	1-162-146-00	CERAMIC	0.001MF		1KV
C810	1-124-225-00	ELECT	100MF	20%	6.3V
C811	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C812	1-124-361-00	ELECT	220MF	20%	10V
C813	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C814	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C851	1-131-377-00	TANTALUM	10MF	20%	10V
C852	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C853	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C854	1-131-387-00	TANTALUM	47MF	20%	6.3V
C855	1-131-349-00	TANTALUM	2.2MF	20%	35V
C856	1-163-076-00	CERAMIC CHIP	0.068MF		50V
C857	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C858	1-123-619-00	ELECT	4.7MF	20%	50V
C859	1-131-377-00	TANTALUM	10MF	20%	10V
C861	1-131-386-00	TANTALUM	33MF	20%	6.3V
C875	1-131-347-00	TANTALUM	1MF	20%	35V
CF201	1-409-370-00	TRAP, CERAMIC	4.5MHZ		
CF251	1-567-115-00	FILTER, CERAMIC			
CF252	1-567-099-00	FILTER, CERAMIC			
CF253	1-567-100-00	FILTER, CERAMIC			
CN601	1-507-563-00	DC JACK (DC IN 6V)			
D151	8-719-911-19	DIODE 1SS119			
D201	8-719-911-19	DIODE 1SS119			
D251	8-719-100-05	DIODE 1S2837			
D252	8-719-100-05	DIODE 1S2837			
D253	8-719-100-05	DIODE 1S2837			
D301	8-719-100-03	DIODE 1S2835			
D451	8-719-139-07	DIODE RD3.9E-B			
D452	8-719-110-07	DIODE RD10E			
D453	8-719-100-03	DIODE 1S2835			

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
D501	8-719-101-23	DIODE 1SS123			
D551	8-719-815-55	DIODE 1S1555			
D552	8-719-815-55	DIODE 1S1555			
D601 ⚠	8-719-100-16	DIODE RD3.3E-B1			
D651	8-719-100-03	DIODE 1S2835			
D652	8-719-101-23	DIODE 1SS123			
D801	8-719-100-05	DIODE 1S2837			
D802	8-719-908-06	DIODE ERA81-005			
D803	8-719-100-03	DIODE 1S2835			
D804	8-719-911-19	DIODE 1SS119			
D805	8-719-903-28	DIODE ESJA57-04			
D806	8-719-101-23	DIODE 1SS123			
D807 ⚠	8-719-102-80	DIODE RD7.5E-N1			
D808 ⚠	8-719-102-80	DIODE RD7.5E-N1			
D851	8-719-101-23	DIODE 1SS123			
D852	8-719-101-23	DIODE 1SS123			
D853	8-719-911-19	DIODE 1SS119			
IC201	8-759-600-13	IC M51364P			
IC251	8-759-600-46	IC M51378L			
IC451	8-759-700-50	IC NJM386M			
IC651	8-759-157-40	IC UPC574J			
IC851	8-759-700-43	IC NJM4558M			
J901	1-507-838-00	JACK (EAR)			
JR151	1-216-295-00	METAL CHIP	0	5%	1/10W
JR152	1-216-295-00	METAL CHIP	0	5%	1/10W
JR154	1-216-295-00	METAL CHIP	0	5%	1/10W
JR155	1-216-296-00	METAL CHIP	0	5%	1/8W
JR156	1-216-295-00	METAL CHIP	0	5%	1/10W
JR201	1-216-296-00	METAL CHIP	0	5%	1/8W
JR202	1-216-295-00	METAL CHIP	0	5%	1/10W
JR203	1-216-295-00	METAL CHIP	0	5%	1/10W
JR204	1-216-296-00	METAL CHIP	0	5%	1/8W
JR402	1-216-295-00	METAL CHIP	0	5%	1/10W
JR501	1-216-296-00	METAL CHIP	0	5%	1/8W
JR502	1-216-295-00	METAL CHIP	0	5%	1/10W
JR503	1-216-296-00	METAL CHIP	0	5%	1/8W
JR551	1-216-296-00	METAL CHIP	0	5%	1/8W
JR552	1-216-296-00	METAL CHIP	0	5%	1/8W
JR601	1-216-296-00	METAL CHIP	0	5%	1/8W
JR602	1-216-296-00	METAL CHIP	0	5%	1/8W
JR651	1-216-296-00	METAL CHIP	0	5%	1/8W
JR652	1-216-296-00	METAL CHIP	0	5%	1/8W
JR801	1-216-296-00	METAL CHIP	0	5%	1/8W
JR852	1-216-295-00	METAL CHIP	0	5%	1/10W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description
L201	1-459-530-11	COIL (WITH CORE)
L202	1-459-462-00	COIL (WITH CORE)
L203	1-404-446-00	COIL, VIF DETECTOR
L204	1-408-558-00	MICRO INDUCTOR 3.9UH
L251	1-404-451-00	COIL, SIF
L252	1-408-579-00	MICRO INDUCTOR 220UH
L253	1-408-579-00	MICRO INDUCTOR 220UH
L254	1-408-579-00	MICRO INDUCTOR 220UH
L501	1-408-134-00	MICRO INDUCTOR 270UH
L551	1-408-088-00	MICRO INDUCTOR 220UH
L651	1-410-078-11	MICRO INDUCTOR 2.7MMH
L652	1-408-563-00	MICRO INDUCTOR 10UH
L801	1-408-121-00	MICRO INDUCTOR 22UH
L901 ⚠	1-451-229-00	DEFLECTION YOKE
PS851 ⚠	1-532-605-00	LINK, IC
Q151	8-729-216-22	TRANSISTOR 2SA1162
Q152	8-729-216-22	TRANSISTOR 2SA1162
Q153	8-729-900-52	TRANSISTOR DTC114YK
Q154	8-729-900-52	TRANSISTOR DTC114YK
Q202	8-729-100-66	TRANSISTOR 2SC1623
Q203	8-729-100-66	TRANSISTOR 2SC1623
Q301	8-729-216-22	TRANSISTOR 2SA1162
Q302	8-729-100-66	TRANSISTOR 2SC1623
Q401	8-729-900-53	TRANSISTOR DTC114EK
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q451	8-729-100-66	TRANSISTOR 2SC1623
Q501	8-729-216-22	TRANSISTOR 2SA1162
Q502	8-729-100-66	TRANSISTOR 2SC1623
Q503	8-729-216-22	TRANSISTOR 2SA1162
Q551	8-729-100-66	TRANSISTOR 2SC1623
Q552	8-729-100-66	TRANSISTOR 2SC1623
Q553	8-729-159-64	TRANSISTOR 2SD596
Q554	8-729-102-44	TRANSISTOR 2SB624
Q601 ⚠	8-729-177-23	TRANSISTOR 2SB772
Q602 ⚠	8-729-216-22	TRANSISTOR 2SA1162
Q603 ⚠	8-729-100-66	TRANSISTOR 2SC1623
Q651	8-729-900-53	TRANSISTOR DTC114EK
Q652	8-729-100-66	TRANSISTOR 2SC1623
Q653	8-729-100-66	TRANSISTOR 2SC1623
Q654	8-729-100-66	TRANSISTOR 2SC1623
Q655	8-729-271-23	TRANSISTOR 2SC2712
Q656	8-729-301-25	TRANSISTOR 2SD1368
Q801	8-729-271-23	TRANSISTOR 2SC2712
Q802	8-729-301-25	TRANSISTOR 2SD1368
Q803	8-729-271-23	TRANSISTOR 2SC2712

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q804	8-729-301-25	TRANSISTOR 2SD1368			
Q805	8-729-103-72	TRANSISTOR 2SD1005			
Q851	8-729-100-66	TRANSISTOR 2SC1623			
Q852	8-729-159-64	TRANSISTOR 2SD596			
Q853	8-729-199-92	TRANSISTOR 2SD999			
Q854	8-729-101-07	TRANSISTOR 2SB798			
Q855	8-729-103-16	TRANSISTOR 2SC1622A			
Q856	8-729-216-22	TRANSISTOR 2SA1162			
Q857	8-729-100-66	TRANSISTOR 2SC1623			
R151	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R152	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R153	1-216-049-00	METAL CHIP	1K	5%	1/10W
R154	1-216-049-00	METAL CHIP	1K	5%	1/10W
R155	1-216-073-00	METAL CHIP	10K	5%	1/10W
R156	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R157	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R158	1-216-049-00	METAL CHIP	1K	5%	1/10W
R159	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R201	1-216-029-00	METAL CHIP	150	5%	1/10W
R202	1-216-029-00	METAL CHIP	150	5%	1/10W
R203	1-216-101-00	METAL CHIP	150K	5%	1/10W
R204	1-216-073-00	METAL CHIP	10K	5%	1/10W
R205	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R206	1-216-081-00	METAL CHIP	22K	5%	1/10W
R207	1-216-033-00	METAL CHIP	220	5%	1/10W
R208	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R209	1-216-027-00	METAL CHIP	120	5%	1/10W
R210	1-216-077-00	METAL CHIP	15K	5%	1/10W
R211	1-216-022-00	METAL CHIP	75	5%	1/10W
R212	1-216-041-00	METAL CHIP	470	5%	1/10W
R213	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R214	1-216-031-00	METAL CHIP	180	5%	1/10W
R251	1-216-105-00	METAL CHIP	220K	5%	1/10W
R252	1-216-105-00	METAL CHIP	220K	5%	1/10W
R253	1-216-105-00	METAL CHIP	220K	5%	1/10W
R254	1-216-056-00	METAL CHIP	2K	5%	1/10W
R255	1-216-056-00	METAL CHIP	2K	5%	1/10W
R256	1-216-056-00	METAL CHIP	2K	5%	1/10W
R257	1-216-049-00	METAL CHIP	1K	5%	1/10W
R258	1-216-044-00	METAL CHIP	620	5%	1/10W
R259	1-216-041-00	METAL CHIP	470	5%	1/10W
R260	1-216-056-00	METAL CHIP	2K	5%	1/10W
R261	1-216-180-00	METAL CHIP	180	5%	1/8W
R262	1-216-180-00	METAL CHIP	180	5%	1/8W
R263	1-216-049-00	METAL CHIP	1K	5%	1/10W

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CAPACITORS:
MF:μF, PF:μμF.

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- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R264	1-216-073-00	METAL CHIP	10K	5%	1/10W
R265	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R266	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R267	1-216-085-00	METAL CHIP	33K	5%	1/10W
R301	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R302	1-216-041-00	METAL CHIP	470	5%	1/10W
R303	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R304	1-216-049-00	METAL CHIP	1K	5%	1/10W
R305	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R401	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R402	1-216-049-00	METAL CHIP	1K	5%	1/10W
R403	1-216-226-00	METAL CHIP	15K	5%	1/8W
R404	1-216-121-00	METAL CHIP	1M	5%	1/10W
R405	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R406	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R451	1-247-093-00	CARBON	27	5%	1/4W
R452	1-216-041-00	METAL CHIP	470	5%	1/10W
R453	1-216-044-00	METAL CHIP	620	5%	1/10W
R454	1-216-224-00	METAL CHIP	12K	5%	1/8W
R456	1-216-085-00	METAL CHIP	33K	5%	1/10W
R501	1-216-027-00	METAL CHIP	120	5%	1/10W
R502	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R503	1-216-085-00	METAL CHIP	33K	5%	1/10W
R504	1-216-099-00	METAL CHIP	120K	5%	1/10W
R505	1-216-047-00	METAL CHIP	820	5%	1/10W
R506	1-216-073-00	METAL CHIP	10K	5%	1/10W
R507	1-216-049-00	METAL CHIP	1K	5%	1/10W
R508	1-216-042-00	METAL CHIP	510	5%	1/10W
R509	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R510	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R511	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R512	1-216-047-00	METAL CHIP	820	5%	1/10W
R513	1-216-056-00	METAL CHIP	2K	5%	1/10W
R514	1-216-082-00	METAL CHIP	24K	5%	1/10W
R515	1-216-157-91	METAL CHIP	20	5%	1/8W
R516	1-216-166-00	METAL CHIP	47	5%	1/8W
R517	1-216-041-00	METAL CHIP	470	5%	1/10W
R518	1-216-176-00	METAL CHIP	120	5%	1/8W
R551	1-216-221-00	METAL CHIP	9.1K	5%	1/8W
R552	1-216-075-00	METAL CHIP	12K	5%	1/10W
R553	1-216-045-00	METAL CHIP	680	5%	1/10W
R554	1-216-085-00	METAL CHIP	33K	5%	1/10W
R555	1-216-302-00	METAL CHIP	2.7	5%	1/10W
R556	1-216-007-00	METAL CHIP	18	5%	1/10W
R557	1-216-073-00	METAL CHIP	10K	5%	1/10W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R558	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R559	1-216-086-00	METAL CHIP	36K	5%	1/10W
R560	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R561	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R562	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R563	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R564	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R565	1-216-310-00	METAL CHIP	6.2	5%	1/10W
R566	1-216-045-00	METAL CHIP	680	5%	1/10W
R601	1-216-049-00	METAL CHIP	1K	5%	1/10W
R603	1-216-041-00	METAL CHIP	470	5%	1/10W
R604	1-216-039-00	METAL CHIP	390	5%	1/10W
R605 ⚠	1-216-322-00	CARBON CHIP	5.6K	1%	1/8W
R606 ⚠	1-216-322-00	CARBON CHIP	5.6K	1%	1/8W
R651	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R652	1-216-073-00	METAL CHIP	10K	5%	1/10W
R653	1-216-081-00	METAL CHIP	22K	5%	1/10W
R654	1-216-206-00	METAL CHIP	2.2K	5%	1/8W
R655	1-216-073-00	METAL CHIP	10K	5%	1/10W
R656	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R657	1-216-085-00	METAL CHIP	33K	5%	1/10W
R658	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R659	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R660	1-247-807-00	CARBON	100	5%	1/6W
R801	1-216-224-00	METAL CHIP	12K	5%	1/8W
R802	1-216-041-00	METAL CHIP	470	5%	1/10W
R803	1-216-035-00	METAL CHIP	270	5%	1/10W
R804	1-216-045-00	METAL CHIP	680	5%	1/10W
R805	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R806	1-202-727-00	SOLID	4.7M	10%	1/2W
R807	1-216-280-00	METAL CHIP	2.7M	5%	1/8W
R808	1-216-105-00	METAL CHIP	220K	5%	1/10W
R809	1-216-280-00	METAL CHIP	2.7M	5%	1/8W
R810	1-216-041-00	METAL CHIP	470	5%	1/10W
R811 ⚠	1-216-190-00	METAL CHIP	470	5%	1/8W
R812 ⚠	1-216-190-00	METAL CHIP	470	5%	1/8W
R813 ⚠	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R851	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R852	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R853	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R854	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R855	1-216-049-00	METAL CHIP	1K	5%	1/10W
R856	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R857	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R858	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

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CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R859	1-216-060-00	METAL CHIP	3K	5%	1/10W
R860	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R861	1-216-116-00	METAL CHIP	620K	5%	1/10W
R862	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R864	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R866	1-216-097-00	METAL CHIP	100K	5%	1/10W
R867	1-216-089-00	METAL CHIP	47K	5%	1/10W
R868	1-216-073-00	METAL CHIP	10K	5%	1/10W
R869	1-216-102-00	METAL CHIP	160K	5%	1/10W
R870	1-216-097-00	METAL CHIP	100K	5%	1/10W
R871	1-216-106-00	METAL CHIP	240K	5%	1/10W
R872	1-216-101-00	METAL CHIP	150K	5%	1/10W
R873	1-216-081-00	METAL CHIP	22K	5%	1/10W
R874	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R875	1-216-105-00	METAL CHIP	220K	5%	1/10W
R876	1-216-085-00	METAL CHIP	33K	5%	1/10W
R877	1-216-202-00	METAL CHIP	1.5K	5%	1/8W
R878	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R901	1-216-150-00	METAL CHIP	10	5%	1/8W
R902	1-216-150-00	METAL CHIP	10	5%	1/8W
R903	1-216-009-00	METAL CHIP	22	5%	1/10W
RV151	1-230-428-11	RES, ADJ, METAL GLAZE 100K			
RV152	1-230-429-11	RES, ADJ, METAL GLAZE 220K			
RV153	1-230-427-11	RES, ADJ, METAL GLAZE 47K			
RV154	1-230-428-11	RES, ADJ, METAL GLAZE 100K			
RV155	1-230-397-11	RES, VAR, CARBON (WITH SW) 200K(TUNING)			
RV201	1-230-035-00	RES, ADJ, CARBON 10K			
RV401	1-226-430-00	RES, ADJ, CARBON 5K (CONTR)			
RV451	1-228-898-00	RES, VAR, CARBON 10K (VOLUME)			
RV551	1-226-435-00	RES, ADJ, CARBON 200K (V HOLD)			
RV552	1-230-036-00	RES, ADJ, CARBON 20K			
RV553	1-230-036-00	RES, ADJ, CARBON 20K			
RV601⚠	1-228-889-00	RES, ADJ, METAL GLAZE 2.2K			
RV801	1-228-573-00	RES, ADJ, CARBON 2M			
RV802	1-230-241-00	RES, ADJ, CARBON 4.7M			
RV851	1-230-035-00	RES, ADJ, CARBON 10K			
RV852	1-230-036-00	RES, ADJ, CARBON 20K			
S151	1-554-123-00	SWITCH, SLIDE (BAND SELECT)			
S251	1-554-061-00	SWITCH, SLIDE (SYSTEM SELECT)			
S601⚠	1-554-123-00	SWITCH, SLIDE (POWER)			
SP901	1-503-267-21	SPEAKER (030F013)			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
T501	1-406-051-00	COIL, HORIZONTAL OSC
T801⚠	1-439-338-11	TRANSFORMER ASSY, FLYBACK
T802	1-439-313-00	TRANSFORMER, HORIZONTAL OUTPUT
TH501	1-800-193-00	THERMISTOR S-68-01
TH551	1-800-198-XX	THERMISTOR S-1K
V901⚠	8-735-951-01	CRT (02JM)

ACCESSORY & PACKING MATERIAL

Part No.	Description
⚠1-463-452-11	(AEP)...AC POWER ADAPTOR, AC-129E
3-314-035-00	CUSHION
3-314-036-00	SPACER, FOR SET
3-314-040-00	SLEEVE, ACCESSORY, FOR CARRYING CASE
3-314-074-01	(AEP,E)...SPACER, FOR CARTON
3-314-077-01	(AEP,E)...SHEET, PROTECTION, FOR AC ADAPTOR AND VIEWER
3-314-080-01	STRAP
3-314-088-01	(US).....INDIVIDUAL CARTON
3-314-090-01	(AEP,E)...INDIVIDUAL CARTON
3-314-092-01	(AEP,E)...CASE, ACCESSORY, FOR VIEWER
3-314-093-01	(AEP)....SLEEVE, AC ADAPTOR
3-314-094-01	(E).....SLEEVE, AC ADAPTOR
3-314-095-01	(AEP:SLIVER,E)...CASE, CARRYING
3-314-095-11	(AEP:BLACK).....CASE, CARRYING
3-319-119-01	(US).....CASE, CARRYING
3-701-308-00	(AEP:BLACK)....LABEL, PRODUCT COLOR
3-701-309-00	(AEP:SILVER)...LABEL, PRODUCT COLOR
3-773-948-11	(E).....MANUAL, INSTRUCTION
3-773-948-41	(AEP)....MANUAL, INSTRUCTION
3-773-948-21	(US).....MANUAL, INSTRUCTION
3-795-748-21	(US).....SAFETY INSTRUCTIONS, HEADPHONE
3-881-410-00	BAG, PROTECTION, FOR SET
4-491-213-22	(US).....INSTRUCTION
A-3803-037-A	(AEP,E)...VIEWER, TV CLOSE-UP, VCV-20

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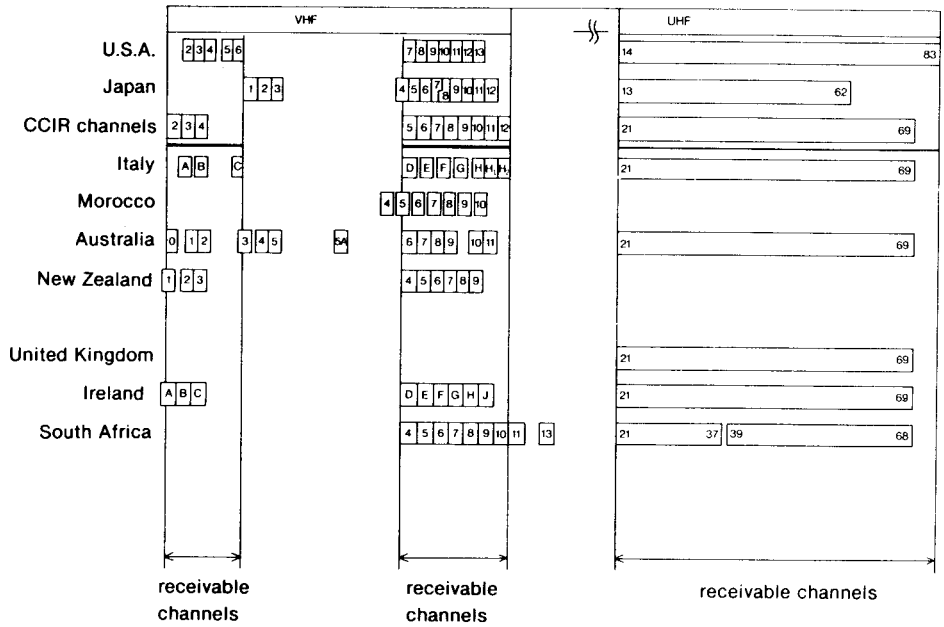
CHANNEL COVERAGE CHART



TV SYSTEM SELECTION CHART

Select the correct position of the SYSTEM SELECT switch for each country or area.

Country/Area	SYSTEM SELECT
Europe	
Albania	CCIR
Austria	CCIR
Belgium	CCIR
Denmark	CCIR
Finland	CCIR
West Germany	CCIR
Gibraltar	CCIR
Greece	CCIR
The Netherlands	CCIR
Iceland	CCIR
Ireland *	UK
Italy	CCIR
Norway	CCIR
Portugal	CCIR
Spain	CCIR
Sweden	CCIR
Switzerland	CCIR
United Kingdom (only UHF receivable)	UK
Yugoslavia	CCIR
Middle and Near East	
Iraq	CCIR
Israel	CCIR
Oman	CCIR
Saudi Arabia	CCIR
Syria	CCIR
Turkey	CCIR
United Arab Emirates	CCIR

Country/Area	SYSTEM SELECT
Africa	
Algeria	CCIR
Egypt	CCIR
Libya	CCIR
Morocco *	CCIR
Nigeria	CCIR
South Africa *	UK
Swaziland	CCIR
Tunisia	CCIR
Zambia	CCIR
Zimbabwe	CCIR
Asia	
Bangladesh	CCIR
Hong Kong	CCIR/UK
India	CCIR
Indonesia	CCIR
Japan *	USA
South Korea	USA
Malaysia	CCIR
Sabah, Sarawak	CCIR
Pakistan	CCIR
Philippines	USA
Singapore	CCIR
Sri Lanka	CCIR
Taiwan	USA
Thailand	CCIR

Country/Area	SYSTEM SELECT
America	
Brazil	USA
Canada	USA
Chile	USA
Columbia	USA
Costa Rica	USA
Cuba	USA
Dominican Republic	USA
Ecuador	USA
Guatemala	USA
Mexico	USA
Panama	USA
Peru	USA
Puerto Rico	USA
U.S.A.	USA
Venezuela	USA
Oceania	
American Samoa	USA
Australia *	CCIR
Guam	USA
Hawaii	USA
Johnstone	USA
Midway	USA
New Zealand *	CCIR

• Some channels cannot be received in countries marked with * See the channel coverage chart.

English
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Sony Corporation